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[No. I.]

REPORTS OF THE COMMITTEES OF THE MASSACHUSETTS AGRICULTURAL SOCIETY, AS TO THE PREMIUMS AWARDED AT THE CATTLE SHOW AND EXHIBITION OF MANUFACTURES, HELD AT BRIGHTON, ON WEDNESDAY AND THURSDAY, THE 15th and 16th of October, 1823.

FIRST Committee, on Fat Oxen, Bulls, and Bull calves. The President, assisted by Hezekiah Gates, Esq. of Marlborough, and — Perry, Esq.

As chairman of the Committee on certain descriptions of Live Stock, I am about to report the decisions of that Committee, and to award the premiums to the successful competitors.

Before doing it, however, I hope I may be indulged with some prefatory remarks. They will be as *short* as I can make them, because I know the impatience of those who hope to find that they are among the *fortunate*, and I have not the vanity to believe, that I have the power either to instruct or entertain you—what I shall say, will be directed solely to the object of reconciling those who may be disappointed, not only in the awards of *this* Committee, but in those of all my brethren, and their assistant judges.

It would not do to compare this exhibition to a *lottery*, for that would imply the absence of all skill, judgment, and anxiety to do right; while in *this* case, every expedient has

been adopted to secure competent skill, to exercise the soundest judgment, and with the deepest desire to give a just and impartial decision. We select the most experienced judges of animals—men, above temptation or bias. They undertake this laborious and unthankful office, without the hope, or the wish, of any other reward, than the promotion of the public good. We choose the best farmers as judges of working cattle and ploughing. We *seek out* the ablest and most skilful mechanics, (need I name such men as Mr. Moody, of Waltham, and Mr. Alger, of South Boston?) to judge of new inventions; we invite experienced importers or venders of manufactured goods, to examine the various and constantly increasing articles, which the ingenuity and taste of a country, preeminently distinguished for its inventive powers in objects of science and taste, the country of Fulton, and of a *greater* name, of Perkins, are constantly adding to the common stock.

It would seem, then, that we have done every thing in *our* power to secure intelligent and impartial awards; yet it must be seen and felt by every one, that in *one* respect, and in *one* respect only, a cattle show resembles a lottery; that point of resemblance is, that *as* in a lottery, *so* in these exhibitions, there are *many* blanks, and but *few* prizes; and would any fair man, and disinterested friend to agriculture and manufactures wish it to be otherwise? Would it be desirable, that *all* should draw prizes? There would be an end at once to all competition; there would be no reward to those, who by *patient* care, and cultivated ingenuity, had reared superior animals, or produced a fabric of superior beauty and durability. The very intent of these shows is to *discriminate* and reward *superior* exertions, and to encourage those who have come a *little* short of the prize, this year, to make their utmost efforts to excel in another. It cannot be too often repeated, that the task of judging is as *delicate*, as it is laborious and unthankful. It is unthankful, because the *disappointed* much outnumber the *successful*

candidates. It is also unthankful, because the committees may occasionally (though not often) differ from the *public* opinion; yet an intelligent and impartial public, and a fair and generous competitor, will admit the serious difficulties in the case, and that it is scarcely possible, that all men will think alike as to the *beauty* of an animal, any more than they agree in the relative beauty of their wives and children,—neither they will be more likely to agree in the other qualities of the animals, their aptitude for labour, their disposition to fatten; and still less, can uniformity of opinion be expected in the varied and ever changing forms, so arbitrary as in *fancy* articles of *manufacture*.

Having made these general remarks, applicable to all my friends and associates,—I will add one or two peculiarly adapted to my own branch of inquiry and decision.

As to fat cattle, there can be little difference of opinion. The animal has then run through his course; has performed his destined, and faithful and invaluable labours to man, and by a hard, but *inevitable* fate, he is to be submitted to the knife, and the sinews and muscles which turned the sod, are to be converted into the sustenance of man. He is, *when so fatted*, in his most perfect state, and skilful men (such I have had the pleasure to be associated with,) can *then* decide, which animal is, on the *whole*, the best. They can do this with so much accuracy, that they can *lay the ox* (as the phrase is) within a score of pounds of his *actual* weight, and they can even decide in most cases the quantity of fat, or tallow, which will be found in parts concealed from the eye.

Not so as to the *bull*. In judging of a bull, *many* properties, or qualities, are to be taken into the estimate; his carriage, whether erect or grovelling; his temper, whether ferocious or tractable, his eye, whether full or sunken, his neck and head, whether thin and delicate, or thick and fleshy; his coat, whether coarse, like that of a buffalo, or fine like that of a full blooded racer; his limbs, whether

stubbed and thick, like those of an elephant, or delicate, denoting activity and power, like those of an antelope; his forehead and chest, whether deep and powerful, indicating that he will produce a progeny calculated to tear up the stiffest soil, and to remove the heaviest rocks; and a hind quarter, fitted with muscles, which, when properly loaded with fat, will furnish an abundance of delicious food. There are many minor properties, such as the straitness and breadth of the back, and the elevated insertion of the tail, known to good judges, which I forbear to notice.

But my enumeration will satisfy any reasonable mind, that it is not *size alone* which can determine the preference, and that it is no light or trifling task to decide upon the properties of that noble animal, the bull; the parent, and the most important parent, of our most valuable domestic animal. I would not be *misunderstood*, when I call him the *most* important parent, I mean it simply in *this* sense; while *one* cow can transmit either her good or bad qualities to only eight or ten individuals, a good or bad bull may convey his good or bad properties to some hundreds.

The remarks I have made as to bulls, are equally applicable to *bull calves*, with one exception, which I beg every intelligent farmer to weigh. Bull calves are imperfect animals in a state of growth, often preternatural growth; as in man, we find children, often disproportioned when growing, and at mature age of the most perfect proportions; so bull calves of little promise, often become perfect specimens of their species, and the most perfect calves, when young, not unfrequently prove distorted, or coarse or ordinary, when arrived at maturity. I entreat your patience for these details, which seemed to me, however, necessary.

We award the first premium for a fat ox, to Asa Pond,

of Petersham; weight 2597 pounds, \$30

The second premium for a fat ox, to Samuel Bowen,

of Adams, in Berkshire, 25

- The third premium for a fat ox, to Amos Davis of Groton; weight 2200, \$15
- The first premium for bulls, to Col. Jaques, of Charlestown, for his red bull, called Middlesex, out of Cœlebs, owned by him, 30
- The second premium to Samuel Keir, of Charlton, for his bull out of *Holderness*, owned by Gorham Parsons, Esq. of Brighton, and much approved in that part of Worcester, 20
- The third premium to Col. Jaques, of Charlestown, for his bull out of Cœlebs, called "Yankee," 10
- The first premium for bull calves, we award to Jacob Sawyer, of Westminster, for a native bull calf of a breed that has often gained our premiums, weighing at 7 months old, 725 pounds, 15
- The second premium for bull calves is awarded to John Brown, of Dudley, for a bull calf of the *Holderness* breed, 10
- The third premium for bull calves is awarded to Silas Stone, of Sherburne, Middlesex, for a calf out of Fill-pail's progeny, owned by Mr. Abner Wheeler.— Note, Fill-pail was presented to the Society by Col. Thorndike, and imported from the Netherlands. His progeny in the third degree inherit fully his qualities, 5

There were several other fine bull calves, among which I am requested by the committee to notice that of Nathan Nichols, of Malden, out of Cœlebs; that of William Dodge, and that of Daniel Stephens, of Marlborough.

Among many excellent bulls not included in the premiums, were a bull from Denton, by the Hon. Mr. Welles; Jupiter, a white bull, of Col. Jaques; the bull of Henry Rice, Esq. of the same breed, and a native bull, exhibited by David Perham.

It will be seen by this enumeration, that even the second and third crosses from the imported bulls, have car-

ried the premiums, and yet it was not in any degree owing to any influence which I, as a trustee, exerted over two very respectable citizens from the interior; I am only the organ to communicate their opinion, carefully formed, and cautiously expressed. It will, however, be seen, that some native bull calves, of a superior stock, carried the two first premiums; a proof that we need selection and care only, to make our own breed equal to any we could import. Yet we must rejoice at the opportunity we have had to cross our breed with the most improved of foreign countries. If no other effect should be produced, than that of exciting attention to the improvement of our native stock, all the care and expense hitherto bestowed would be only as the chaff is to the plump and healthy grain.

JOHN LOWELL, *Chairman.*

N. B. There was a cow exhibited, owned by Charles Vaughan, Esq. of Hallowell, which on several accounts, did not come within the list of our premiums.—Yet it would be improper not to notice her; she was from an imported breed, of great value, and she was without question one of the most perfect animals ever exhibited in Brighton.

REPORT No. II.

The Committee on Milch Cows, Heifers, Sheep and Swine, consisting of E. Hersy Derby, Esq. Willard Gay, Esq. of Dedham, and Abner Wheeler, Esq. of Framingham, report:

THAT there were three premiums offered for milch cows, for which there were twelve candidates, and after a long deliberation they have awarded the premiums in the following manner.

The first premium to the Rev. John B. White of East Sudbury,	\$30
Second premium to the Rev. Samuel Capen, of South Boston,	20

Third premium to Henry Rice, of Boston, for the
Duchess of Marlborough, \$15

Mr. White who received the first premium, furnishes the following statement under oath. His is a native cow, raised by Mr. Noah Smith of Sudbury, is nine years old, and came into his possession in the spring of 1821. She calved on the 28th of May, the calf was killed the 11th of July. She has furnished one hundred and fifty-six pounds, nine ounces of butter, besides furnishing the family with a supply of milk. Weight of one quart of her milk, two pounds and a half. Weight of milk given in a day when the calf was a week old, besides what he would take, thirty-five pounds eight and three quarters of an ounce. Weight of milk when the calf was three weeks old thirty-two pounds, thirteen ounces. Weight of milk given on the day after the calf was killed sixty pounds. On the 27th of September, weight of milk given in one day, thirty-eight pounds, twelve ounces, fifteen quarts, one pint. On the 11th of October, thirty-six pounds, fourteen quarts, three one-fifth gills. From this it appears that the mean weight of milk given by the cow from the time when the calf was killed to the present, is forty-eight pounds a day. It also appears that when the calf was killed she gave milk at the rate of a barrel of thirty-two gallons beer measure in five and one third days, and that she now gives milk at the rate of a barrel in eight days and eight ninths of a day.

Mr. Capen, who received the second premium, stated under oath that his cow was raised by himself, is from a superior native cow and a bull of the Hon. John Welles's stock; is eight years old, calved the 2d of May, since which she has furnished two hundred and two pounds of butter; her greatest quantity of milk has been about sixteen quarts per day, of very rich quality.

Mr. Rice stated that his cow by Denton was three years old last February, she calved July 27th; she has given from the 9th of August, to the 13th of October, sixty-five days.

two thousand four hundred and eighty-one pounds of milk, averaging thirty-eight one fifth pounds per day.

The Committee noticed with pleasure two other very fine cows, one belonging to the Hon. John Welles, the others to Mr. Luke Fiske.

There were twenty-four Heifers entered for premiums, and your Committee had only three premiums to award. Among so many very fine animals, they found it extremely difficult to decide, and regretted that no distinction had been made in the premiums between those which had calved and those which had not. But taking into view every circumstance, they have been induced to award the first premium of fifteen dollars, to Mr. Samuel Jaques of Charlestown, for his full blooded short horned heifer of sixteen months.

The second premium of ten dollars, to Major Benjamin Wheeler, of Framingham, for his part blooded heifer of fourteen months old.

The third premium of seven dollars, to Col. Joseph Valentine of Hopkinton, for his native heifer of seventeen months old.

The Committee were highly pleased with several other heifers, and regret that they could not award more premiums. They feel desirous of noticing in a particular manner the five heifers by Denton, owned by his Honor Levi Lincoln, of Worcester, also five heifers offered by the Hon. John Welles of Dorchester, one by John Pierce Esq. of Roxbury; two by Jacob Knapp Esq. of the same town; one by George L. Stearns, of Medford; one by Samuel Brooks of Brighton; one by the Rev. Lemuel Capen, of South Boston; one by Dr. Codman, of Dorchester, and two full blooded young heifers by Col. Samuel Jaques of Charlestown.

In deciding the premiums on Merino Sheep, they have been governed more by the fineness of the fleece on every part of the same, than by the size and appearance of the animal, and have therefore awarded,

To Samuel Henshaw, of Boston, the first premium for the best Merino Ram,	15
To Samuel Jaques, of Charlestown, the second do.	10
To Samuel Henshaw, of Boston, the first premium for Merino Ewes,	20
To Samuel Jaques of Charlestown, the second do.	10

There were several other lots of Merinoes, all of which the Committee thought very highly of, several of which were very much superior in size and appearance to the ones to which they have awarded the premiums, but the quality of their wool was not of such exquisite fineness throughout. There were no Merino or native wethers offered for premiums. They were much gratified by the appearance of four long woolled sheep from the Netherlands, imported by Col. Jaques, who has made great exertions to introduce fine breeds of sheep into the country, but as the Society have not offered a premium for sheep of that kind, they could not award any.

The Committee award for the best Boar, the first premium to Gorham Parsons, Esq. for his Cobbet and Wellington boar,	\$12
For the second best to Silas Dudley, of Sutton,	8
For the third, to Francis Moore of Brighton,	5
For the best Sow, to Silas Dudley, of Sutton,	12
For the secondbest, to Gorham Parsons, Esq. for his Leicester Sow,	8
For the third, to S. W. Pomeroy, Esq. of Brighton,	5
For the best store Pigs, to Josiah P. Kenney, of Roxbury, the first premium,	10
For the second best, to Luke Fiske, of Waltham,	5
For the best spayed Sows, four in number, to T. P. Meriam, of Concord,	20

[Your Committee were much pleased with the appearance of these animals. Mr. M. furnished them with a description in writing of his mode of operation.]

Mr. Parsons desires the committee to state that he re-

linquishes the premiums awarded to him for his swine, having intended to enter them for exhibition only.

All which is respectfully submitted.

E. HERSY DERBY, *Chairman.*

REPORT No. III.

BRIGHTON, OCT. 16, 1823.

THE Committee on Agricultural Inventions, report :

That among the articles presented of this description, Safford's Straw Cutter, is, in their opinion entitled to the Society's premium, from its great simplicity as well as its effectual operation. The motion is communicated to the feeders directly by a double threaded iron screw, without bands or any complicated machinery. The knives are flat and oblong, and affixed to the radius of an iron wheel, and fixed and unfixed, and regulated with the greatest ease. The whole expense of the machine is fifteen dollars. It is said that it will cut a bushel of straw in a minute ; and the testimonials in its favour are of the most decisive character, given by persons well acquainted with the use of such machines, who certify that "it exceeds any other they have ever seen, for cheapness, simplicity, despatch and durability." Your Committee therefore award to Mr. Safford the Society's premium of \$20.

A machine, called Jaquith's Threshing Machine, was presented for premium by the inventor. It is chiefly characterized by its being the application of the same wheels to the action of flails, which are fed by geer, or bands. The operation of the machine is very simple and effectual, and in the opinion of your Committee is the best, which has yet been presented, for *mowed grain*. Its expense is thirty-five dollars, when prepared for the hand, and seventy-five dollars when prepared for the horse power. Your Committee deem it entitled, and accordingly award a premium of twenty dollars ; the proprietor adducing certificates, to the satisfac-

tion of the Chairman, that the machine has been used and approved by some practical farmer.

Walter Janes presented for premium, a Corn Shelling Machine, the principal component parts of which were a fluted cast iron cylinder hung under the segment of another fluted cast iron inverted cylinder. Without attempting further to particularize its conformation, your Committee deem it sufficient to state that it performed its operations well, and it is in their opinion an useful machine. Your Committee do not however, deem it so decidedly, if at all, superior to machines for a similar purpose used in this vicinity, as to justify them in awarding any premium; although they deem it well adapted for its purpose.

A Shearing Machine, presented by John T. Cambridge, of Springfield, Vermont, the operation of which is chiefly characterized by the horizontal motion and sliding action of the knife, by which it differs from similar machines in common use in our manufactories. It is a machine extremely handsome in its structure, and performs its work well; but not coming under the head of agricultural implements, is not embraced within the sphere of premiums, or the authority of the Society.

The same remark applies to a machine denominated "Jencks's Alleviator." This your Committee apprehend to be a very excellent invention, and is very powerfully recommended by Dr. Warren, of Boston, and others, for the raising of persons, whose limbs are fractured, while in bed, with great ease and safety. While your Committee consider it a machine of great practical utility in hospitals and sick chambers, they deem it not within the objects or power of this Society to award to it a premium.

Various agricultural machines were presented for exhibition only; among these your Committee particularly notice Mr. Pope's threshing machine, which on a former year obtained the Society's premium. It has been since improved, and now can thresh, as it is stated, with a hand power and

the assistance of three men, from eight to ten bushels of grain per hour; and enlarged, to the application of a horse power, will thresh per hour, from ten to fifteen bushels of wheat, and from fifteen to twenty of rye or oats.

Messrs. Lincoln Fearing & Co. also presented for exhibition a variety of agricultural implements, consisting of forks, ploughs, Eastman's straw cutter, from Baltimore, and Curtis's churn, from Connecticut; all of them to be found in their excellent and extensive collection of agricultural implements in Boston, and all machines of different degrees of merit, the particulars of which your Committee did not deem themselves called upon to estimate. They cannot fail, however, to express their gratification at the particular exertions of Messrs. Lincoln Fearing & Co. as well as at the general evidence of the increasing attention of the community to implements tending to improve and to lighten the labours of agriculture.

JOSIAH QUINCY,
CYRUS ALGER,
PAUL MOODY.

REPORT No. IV.

BRIGHTON, OCT. 16, 1823.

THE Committee on Manufactures award

To James Shepherd & Co. of Northampton, for the best specimen of Broadcloth,	\$20
To Slater & Howard, of Oxford, for the next best,	15
To Thomas Dedman, of Templeton, for the best specimen of Woollen Cloth, of household manufacture,	12
To George M. Barrett, of Concord, for the next best,	8
To James Shepherd & Co. of Northampton, for the best specimen of Cassimere,	12
To the Wolcott Woollen Manufacturing Company, for the next best,	8
To Lincoln Burr of Hingham, for a piece of Kersey, second premium,	8

To Messrs. Pomroy & Clapp, of Pittsfield, for the best specimen of Sattinet,	\$8
To Seth Bemis & Co. of Watertown, for the next best,	5
To Mrs. Stephen Fay, of New Braintree, for the best specimen of household Flannel,	10
To Jonathan Wilder, of Sterling, for the next best,	7
To Ephraim Coburn of Dracut, for the best specimen of Linen Diaper,	5
To Gideon Delano, of New Braintree, for a piece of Linen Cloth,	8
To John Hunter, of New Braintree, for the best specimen of Floor Carpeting,	15
To Joshua Melville, of Concord, for the next best,	7
To Benjamin Poor, of Newburyport, for the best piece of Stair Carpeting,	10
To Theodosia Converse, for a specimen of fine Blankets,	6
To Anna Buckman, of Tewksbury, for a specimen of Linen Diaper Table Cloths, Worsted Stockings and Work Basket (as a gratuity,)	3
Also to Polly Leland for a piece of Cotton Diaper,	5
To P. Sandford, and brother, of Medway, for a specimen of fine Cotton Tread,	5
To Elizabeth Cowan, of Boston, for a specimen of Thread Lace,	3
To Ann Heath of Roxbury, for thirteen pair of Cotton Stockings,	5
To Mary Ann Plimpton, of Medfield, for a Straw Bonnet,	4
To Olivia Stanley, of Dracut, for do.	3
To Eunice Danforth, of Norton, for two extra fine straw Bonnets,	5
To Martha Hapgood, of Shrewsbury, for a Bonnet,	2
To Lavina Sweet, of Foxborough, for a Bonnet made from the husks of corn,	3

To M. W. R. of Boston, for a Cotton Counterpane,	\$5
To Misses Baxters, of Quincy, for a Hearth Rug,	3
To Sarah Cushing, of Dorchester, for a Rug,	3
To Jane Coburn, of Dracut, for do.	2
To Betsey and Mary Munroe, of Lincoln, for two Hearth Rugs, each,	2
To Caroline Cutting, of E. Sudbury, for do.	2
To Mehitable Dean, of Mansfield, for do.	2
To Louisa Clark, of Boston, for do.	3
To Susannah Whiting of Cambridge, for do.	2
To Anna Bemis, of Watertown, for do.	3
To Mary B. Converse, of New Braintree, for do.	2
To Mrs. Elijah Warren, of Leicester, for do.	2
To Catharine Pierson, for three pair of fine Worsted Hose,	2
To Hannah Hawks, of Sterling, for do.	2
To Frances, Nancy, Elizabeth and Abiel Wheeler, of Worcester, for a specimen of Artificial Flowers, exhi- bited as the work of young children, each,	2
To John Thoreau & Co. for a specimen of Lead Pen- cils, manufactured from Plumbago, native of this coun- try,	5
To Marian R. Haven, of Hopkinton, for two Straw Bon- nets and Calash of Straw,	4
To Sarah Pollock, of Canton, for a Grass Bonnet.	4
To Susan Whitney, of Dedham, for do.	2
To Abigail Goodale, of West Boylston, for wrought But- tons and Frogs,	2
To Nancy Wheeler, of Worcester, for Tippetts of Tur- key Down,	2

A Bonnet from Plymouth, made of white paper, was con- sidered by the Committee a curious and ingenious article, but they doubted whether it could be sufficiently servicea- ble to merit encouragement.

The number and amount of premiums on Factory Goods having been diminished since the last year, in favour of

household fabrics, factory Flannels were not a subject of premium the present year.

The best of the specimens sent for exhibition, from the Amesbury Flannel manufactory, were very fine and of excellent materials, and in all respects well finished. There were pieces of different qualities, but all creditable to the Company.

The Flannels from the Andover factory were better than any others exhibited.

The four pieces from the Salisbury Woollen Manufactory were substantial goods, but not in a finished style.

Many of the specimens of Household Industry, exhibiting a commendable taste, ingenuity and skill, are not rewarded by gratuities, not because they were undeserving this distinction for any deficiency in the qualities mentioned, but because it was necessary to put a limit somewhere to this kind of reward; the Committee have therefore conferred it on some of the most useful articles only. Much praise, however, is due to Miss Merrill, of Salisbury, for a parcel of fine Linen Thread; to Hannah Edson, of Hardwick, for Worsted Socks; to a Lady of Plymouth, for a Paper Bonnet; to T. P. Meriam, of Concord, for a specimen of Stocking Yarn and a pair of Socks; to Mrs. Robinson, of Worcester, for Stockings and Socks, and to Mary Adams, for a specimen of good Carpeting.

The pieces of Calico from the Charlestown Bleachery (a recent establishment) were thought by the Committee to be excellent goods, and far preferable for durability to English calicoes of the same description.

A very fine Beaver Hat was exhibited by Messrs. Dikeman & Shepard, of Northampton. The committee could conceive of no improvement beyond it.

The case of Hats, from the Boston Manufacturing Company, were of the first quality of gentlemen's hats. This Company have in former years deserved and received the

commendation of the Committee on Manufactures, whose favourable judgment has been confirmed by the public. It is understood that the importation of men's hats, even of the best qualities, is now very small.

The two parcels of Sail Cloth, one by Mr. George B. Chase of Salem, the other by Mr. George Johnson, of Cambridgeport, were pronounced by competent judges to be without fault, and these gentlemen have therefore secured to themselves a good prospect of the public patronage.

Four pieces of black Broadcloth, offered for exhibition only by the Wolcott Woollen Manufacturing Company, were very creditable to the makers, and with a little more skill in the finishing would have approached very nearly to those which obtained the first premium.

The best of the Broadcloths, Cassimeres, and Sattinets, were much superior, in all respects, to the same quality of goods exhibited at Brighton in any previous year.

RICHARD SULLIVAN, *Chairman.*

EDWARD TUCKERMAN,

JOHN LEMIST.

REPORT No. V.

BRIGHTON, OCT. 16, 1823.

THE Committee appointed to award premiums on the Ploughing by single teams, or one yoke of oxen, have attended to the duty assigned them, and report as follows, viz :
—That nine persons entered as competitors, and drew from the eleven lots laid out by the Committee of Arrangements as follows :

No. 9.—Joseph Dudley, of Sutton, himself ploughman, ———, driver. Work performed in 26 minutes—12 furrows turned.

No. 10.—Lincoln Fearing, of Boston, E. Cushing, ploughman, Giles Woodman, driver. Work performed in 29 1-2 minutes—10 furrows turned.

No. 11.—Silas Dudley, of Sutton, himself, ploughman, Isaac Hathaway, driver. Work performed in 31 minutes—13 furrows turned.

No. 12.—Leonard Stone, of Watertown, Solomon Sargent, ploughman, Jonas Smith, driver. Work performed in 28 1-2 minutes—13 furrows turned.

No. 13.—Isaac Cook, of Brookline, Isaac Cook, jr. ploughman, Isaac Cook, jr. driver. Work performed in 35 minutes—13 furrows turned.

No. 14.—Stephen Marsh of Sutton, Simeon Phelps, ploughman, Stephen Marsh, driver. Work performed in 27 minutes—12 furrows turned.

No. 15.—Aaron Davis Williams, of Roxbury, Lewis Barker, ploughman, Lewis Bliss, driver. Work performed in 32 1-2 minutes—14 furrows turned.

No. 16.—Joseph Miles of Concord, Silas Lee, ploughman, Joseph Miles, driver. Work performed in 25 minutes—11 furrows turned.

Your Committee feel it a duty to report, that all the work was well performed, and did great credit to the performers; but having only three premiums to bestow, after due deliberation, having examined the work carefully award as follows:—

To Isaac Cook, Brookline, the first premium,	\$15
Isaac Cook, jr. as ploughman,	8
Isaac Cook, jr. having no driver,	4

\$27

To Aaron Davis Williams, of Roxbury, the second premium,

Lewis Barker, Ploughman,	5
Lewis Bliss, Driver,	3

\$18

To Silas Dudley, of Sutton, the third premium,	\$6
Silas Dudley, as ploughman,	3
Isaac Hathaway, driver,	2
	<hr/>
	\$11

The Committee found some difficulty in awarding the premiums, and regretted that they had not at least one more to bestow, but have endeavoured to award in the best manner the nature of the subject would permit. All which is respectfully submitted.

(Signed)

GORHAM PARSONS, *Chairman.*

ICHABOD NICHOLS,

FRANCIS WINSHIP.

REPORT No. VI.

BRIGHTON, OCT. 16, 1823.

THE Committee on the Ploughing Match of *two pair* of oxen to plough one quarter of an acre, consisting of John Prince as chairman, and Josiah Titcomb and Paul Upton, beg leave to report their opinion and award of premiums:

That four ploughs only were entered to contend for the three premiums; that the ploughmen drew for lots as follows:

No. 1.—John Sherman, of Sutton, with plough and wheel on the end of the beam, made by J. Hall, of Sutton—said Sherman himself ploughman, and Austin Sherman, driver.

No. 2.—Stedman Williams, of Roxbury, plough made by Jesse Warren, of Dedham, with wheel on the beam—said Williams, ploughman, and Samuel Prime, driver.

No. 3.—Joseph Curtis, of Roxbury, plough made by Jesse Warren, of Dedham, with wheel and cutter—Amos Wyman ploughman, and Aaron Stone, driver.

No. 4.—Aaron Davis Williams, of Roxbury, plough made by Jesse Warren, of Dedham, with wheel and cutter—Thomas Howe, ploughman, and David Howe, driver.

The rules and regulations were explicitly stated to the

ploughmen, particularly that *goodness of work*, the *state* of the cattle when finished, and *time*, would be taken as criterions in deciding the premiums; and that the Committee did not wish the cattle to be *hurried*, as good work could not be well done, when over driven. They have great satisfaction in stating that the work was all exceedingly well performed, and the cattle came out in good order and could all of them, with ease, have proceeded to double the work, if required. The only difficulty the committee experience is in deciding, and they trust, from the pains they took, that the unsuccessful competitor will not feel dissatisfied, although he was the only one that could not obtain a premium; they much wish they had a fourth to give him.

No. 1 finished their task in 48 minutes 20 seconds, with 28 furrows in 24 feet width, making 10 1-3 inches per furrow—the cattle 3 and 4 years old.

No. 2 finished in 44 minutes 20 seconds, with 26 furrows in 24 feet, making 11 inches per furrow—cattle 3 and 8 years old.

No 3 finished in 49 minutes 30 seconds, with 26 furrows in 24 feet, making 11 inches per furrow—cattle 7 and 8 years old.

No 4 finished in 49 minutes, with 28 furrows in 24 feet, making 10 1-3 inches per furrow—cattle 6 years old.

The chairman having stated his wish to the others of the Committee that they should agree on the premiums, if not, he would be called to the unpleasant task of deciding—which he is happy to inform the Trustees he was not required to do, the committee agreeing in opinion to award as follows:—The first premium to

Stedman Williams—plough,	\$15
Himself, ploughman,	8
Samuel Primē, driver,	4

Second premium.—John Sherman—plough,	\$10
Himself, ploughman,	5
Austin Sherman, driver,	3
	<hr/>
	\$18
Third premium,—Aaron D. Williams—plough,	6
Thomas Howe, ploughman,	3
David Howe, driver,	2
	<hr/>
	\$11

They feel themselves in duty bound to state, that the goodness and well training of the three and four years old cattle of Mr. Sherman would have given him a fair claim for the first premium, had he not made two or three baulks in his work. They would also state, that the work of Mr. Curtis's plough was very fine, but rather shallower than their rule, or that of any other plough.

The Committee feel satisfied that all engaged exerted themselves to their utmost in doing good work, and they only regret, that there had not been more competitors, that they should not have had the unpleasant feelings of leaving a solitary, faithful and deserving one.

JOHN PRINCE,
JOSIAH TITCOMB,
PAUL UPTON.

No. VII.—ON WORKING CATTLE.

THE Committee of the Massachusetts Society for the Promotion of Agriculture, consisting of Messrs. John Welles, Silas Gates, Elijah Perry, and Nathaniel Tucker, having been appointed to consider the several claims for premiums to the Working Oxen, duly entered at the Cattle Show at Brighton, on the 16th of October, 1823, have attended to that duty, and report: That they are enabled to congratulate the Society upon the good effects of the encouragement given by them to the rearing, training and improving of the

Ox Team, of the importance and utility of which they have a strong sense.

Ten yoke of Cattle were entered to contend for the premium, and they did honour to the farmers who owned them.

The Committee proceeded to compare them in reference to their *age, strength, size, form, and beauty, equality of match, and other general circumstances*; and after a minute examination, and such test of their power and training as could well be had, they award as follows:—

To John Sherman, of Sutton, his twin cattle, four years old, first premium,	\$30
To John Scammel, of Bellingham, his cattle, four years old, second premium,	25
To Isaac Hathaway, of Sutton, his cattle, four years old, third premium,	20
To Stephen Marsh, of Sutton, his cattle, five years old, fourth premium,	15
To Isaac Stone, of Watertown, his cattle, five years old, half of fifth premium,	7 50
To Simeon Phelps, of Sutton, his cattle, four years old, half of fifth premium,	7 50

The Committee have a full conviction of the motives of the "Society for the Promotion of Agriculture," in extending to the simple operations of labour, by the best selected and judiciously trained cattle, in five several gradations, the most liberal encouragement and reward. The admirable fitness of this power, in cultivation, for our soil,—its cheapness of support,—the ease with which it is reared,—its certain and regular increase in worth, and its intrinsic value in case of accident, should be sufficient inducement to its universal use, and preclude the necessity of persuasion.

But the fact is not to be disguised! The Horse is too often substituted for the Ox, and when maintained beyond necessity, becomes a source of consuming expenditure. The great increase of this animal has, in several parts of Europe,

been thought the means of public inconvenience and distress.

Is it not then a dictate of sound consideration with the Farmer, not to multiply the Horse the greatest consumer of all animals of the means of support to man beyond his convenience and necessity; whose value depends on so many casualties, and ceases with his breath, in preference to the Ox, whose utility has been tested by long tried, and well founded experience? who when he ceases to improve is made to add to our means of support, and to enlarge the interests of the community; every effort to advance which, should be zealously supported by the Agriculturists of Massachusetts.—All which is submitted by

JOHN WELLES,
SILAS GATES,
ELIJAH PERRY,
NATHL. TUCKER.

REPORT No. VIII.

BRIGHTON, OCT. 16, 1823.

THE Committee on Agricultural Experiments, to whom was also committed the inspection of sundry articles of manufacture, for which premiums were offered, report:

That six parcels of Cheese, of more than a year old; and fifteen parcels of new Cheese, were offered for the Society's premiums; much of it, in the opinion of your Committee, superior to any hitherto exhibited; marking, most evidently, improvement in the quality of this article. All the Cheese exhibited was from the town of New Braintree, in the county of Worcester; excepting one parcel of four Cheeses, entered by Mr. Jacob Osgood, of Andover, in the county of Essex, which was well made and of good quality. Of the old Cheese, that from the dairy of Mr. Job Rainger, was considered to be the richest and best made, and is entitled to the premium of ten dollars; that from the dairy of Mr. Elisha Mathews, the next best, and is entitled to the premi-

um of five dollars. Of the new Cheese, that from the dairy of Mr. Joseph Green, was adjudged to be the best, and is entitled to the premium of ten dollars; that from the dairy of Mr. Alpheus Gilbert, the next best, and is entitled to the premium of five dollars.

Ten specimens of Butter were entered for premium, most of which is of an excellent quality; that from the dairy of Mr. Jonathan Upham, of Newton, was considered to be the best, and is entitled to the premium of fifteen dollars; that from the dairy of Stephen Hastings, of Sterling, the next best, and is entitled to the premium of ten dollars; that from the dairy of Mr. Jephthah Parker, of Chelmsford, the next best, and is entitled to the premium of seven dollars; and that from the dairy of the Rev. Lemuel Capen of South Boston, being in lumps, and made in June last, the next best, and is entitled to the premium of five dollars.

Mr. Gideon Delano, of New Braintree, offered specimens of Butter, and Cheese, which are of a good quality, made between the 15th day of May, and the first day of October, from ten cows, fed exclusively upon grass; the entire quantity of Cheese being two thousand seven hundred and forty-four pounds, and of Butter one hundred and seventy-one pounds. Your Committee recommend that the premium of twenty dollars be granted to said Delano.

Mr. Samuel Hobbs, of Weston, is entitled to the premium of ten dollars, for the best dressed Calf Skins; and Mr. H. H. Hide, of Framingham, to the premium of five dollars, for the next best.

Five sides of Sole Leather were entered by Messrs. Benjamin Myrick & Co. of Roxbury, but your Committee did not consider them sufficiently well manufactured to be entitled to the Society's premium; the leather not being of an uncommon good quality.

Four specimens of Currant Wine were entered for the Society's premium; that offered by John Prince, Esq. was considered to be the best, and is entitled to the premium of ten

dollars; John Kenrick, Esq. of Newton, is entitled to the premium of five dollars, for the next best.

A specimen of Wine made from the Elderberry, by Thomas Spencer, of Beverly, was exhibited; it appeared to be a pleasant, and is said to be a wholesome liquor, but one on which no premium was offered by the Society; your Committee recommend that a gratuity of three dollars be paid by the Treasurer to said Spencer.

Some cannisters of Mustard, manufactured by Messrs. Bickford & Kellog, of Boston, were entered for exhibition, and were found on trial to be equal, if not superior to any imported; no premium was offered by the Society for this article.

By order of the Committee,

THOMAS L. WINTHROP, *Chairman,*

REPORT No. IX.

THE Committee on Agricultural Experiments submit for the consideration of the Board of Trustees the following, in addition to their Report dated the 16th day of October last, to wit:

That Col. Joseph Valentine, of Hopkinton, in the County of Middlesex, is entitled to the Society's premium of thirty dollars, for having raised the greatest quantity of Indian Corn, being one hundred and twenty-seven bushels and 29-32 of a bushel, on one acre of land. Col. Valentine's description of his culture is as follows:—"The quality of the soil is a deep yellow loam, situated on a western declivity, and naturally moist. The land has been improved for mowing six years last past, and until the last year it has yielded very heavy crops. In July, 1822, the crop of hay falling below the produce of former years, I thought it expedient to stir the ground; in August following the ground was broken up, and in November it was harrowed, and cross ploughed. In the spring of 1823, it was again ploughed, and harrowed, and twenty loads of green barn manure

spread equally over it, and ploughed in. It was then furrowed in rows about three feet and six inches apart, with a large horse plough, the plough going twice in each row to make a deep channel for depositing the compost manure, and also to leave the seed when planted, lower than the general surface of the ground. The rows thus prepared, were filled with twenty loads of barn, hog-yard, and night manure, well mixed, and pulverized with Smithfield lime; the manure was then levelled, and the kernels of seed placed about ten inches apart widthwise, and four inches lengthwise in the row, and covered lightly with fine mould. The seed was the yellow twelve rowed corn, which was soaked in a strong saltpetre brine twenty-four hours, and then spread, sprinkled with quick lime and raked over until completely coated with lime; it was ploughed twice, and hoed three times at the last hoeing; the first of July, the suckers were pulled out, and in the fore part of August, the suckers were again pulled out, and the false stalks cut away. In hoeing the corn I was particularly careful to loosen the soil and remove the weeds without raising the earth about the stalks, as I had usually done; the stalks would average from nine to ten feet high, and were cut the first week in September. The first week in October the corn was harvested, and carefully measured in baskets by two of my men who had assisted in cultivating the crop. I directed the same men to take each of them a basket and fill it with ears in the same manner as when they measured the whole, and to shell and measure the quantity of shelled corn obtained from a basket of ears; the amount of shelled corn from each basket of ears was the same, viz., nineteen quarts; and when turned together and measured, the result was one bushel and six quarts and a fraction over, from the two baskets. By computing the produce of the whole acre from the quantity of ears as measured in the basket, and the amount of shelled corn contained in a basket of ears, the result will be one hundred and twenty-seven bushels and twenty-nine quarts of

shelled corn, weighing between sixty and sixty-two pounds to the bushel. The field in which the above acre was measured contains three acres; one half of which was planted with seed prepared as above stated; the other half was planted with seed prepared in its natural state. The corn in every part of the field came up well; and as the ground was all manured and cultivated alike, there could be no difference in the quality of the soil, to invite or repel insects and vermin. But in that part which was planted with seed in its natural state, at least one sixth part of the blades were eaten off and destroyed by the worms, while in the part planted with seed soaked in brine and coated with lime, not a single blade was discovered that had been attacked by them. This is the first experiment I ever attempted to prove the utility of securing corn against the ravages of the worm by any process applied to the seed. Perhaps the mode above described and pursued by me, may not always be attended with the like success. It may, however, be the means of exciting the attention of others who have more leisure and ability than myself, to discover and apply a certain remedy for so great a hindrance to the farmer. The value of the stalks and fodder I consider equal to one ton and a half of English hay; the entire expense of cultivating this acre of corn, including thirty dollars for the forty cart loads of manure, was fifty-five dollars and seventy-five cents." Col. Valentine is also entitled to the premium of twenty dollars, for having raised the greatest quantity of wheat, being thirty-seven bushels and one fourth of a bushel on one acre. "In the spring of 1822, it was ploughed and planted with Indian corn, forty loads of manure were spread and laid upon it, and the crop produced was one hundred and sixteen bushels and twenty-eight quarts of corn, well dried and fit for use. In the spring of 1823, as soon as the ground was fit for ploughing, I had it ploughed twice and harrowed; three bushels of Gilman wheat were sowed on one acre and a few rods,

and ploughed in; I then sowed twelve pounds of clover, and half a bushel of herds grass seed, spread one hogshead of slacked lime upon the land, and harrowed it well twice with an iron harrow. The wheat before sowing was washed clean in clear water, then soaked forty eight hours in strong lime water, then laid on a dry floor and slacked lime sprinkled upon it, and frequently stirred until it was covered with lime. Such was my practice with the seed. In the month of July I employed a surveyor to measure the land on which the three bushels of wheat were sowed, and found it to contain one acre and a few rods over; the number of rods exceeding one acre were staked off, and the wheat growing thereon was reaped and threshed by itself; the produce was between one and two bushels; the acre was reaped and bound with long rye-straw, and found to be seven hundred and sixty-two bundles, making fifty shocks and twelve sheaves. When threshed, winnowed and measured, the produce of the acre was found to be thirty-seven bushels and one fourth of a bushel; the quality of the grain was excellent, not a kernel of smut or burnt grain could be found, and the straw was perfectly clear and bright; the kernel was very large and full. Many persons have examined it who have been acquainted with the culture of wheat in the western country, and they pronounce it equal to the produce of the new land growth. Its weight is sixty pounds to the bushel."

That Silas Pearson, of Newbury, in the County of Essex, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of Barley, being fifty-two bushels and eighteen quarts upon one acre of land. "The entire lot contains one acre and fifty-three rods; the soil is a gravelly loam; in 1822, it was planted with potatoes, and manured with about twenty ox cart loads of compost manure to the acre, which produced a handsome crop; in April, 1823, it was ploughed plain and harrowed, the seed was then sowed and covered with a harrow, which took four bushels of the two rowed kind; the crop was mowed and

threshed out in August, and the amount was seventy bushels, at fifty pounds per bushel."

That John Prince, Esq. of Roxbury, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of Mangel Wurtzel, being seven hundred and sixty-two and a half bushels, on one acre. "The land was cultivated in 1822 with corn, potatoes, and winter squashes, in alternate rows, and sixteen or eighteen cart loads of compost manure (one half meadow mud) to the acre. It is almost on the top of my hill, is gravelly loam, or a hard pan bottom, inclining to the S. S. E. This season twenty-four cart loads of the same kind of compost manure were spread on the whole flat, and ploughed in, then harrowed flat, and a common marker made the furrows about two inches deep, and two feet apart, the seed was dropped about five or six inches apart, and covered up on the third of May. From the 11th to the 16th of June, they were hand hoed, weeded, and thinned out to ten or twelve inches apart; on the 1st of July a second and last hoeing and weeding. In August and September were too thick, some were drawn for hogs. In October, by measurement, one hundred and twenty bushels were drawn on one end of the field:— and on the 4th and 5th of November the whole crop was drawn and carted to the barn cellar, and part were pitted in the field, as described in the Massachusetts Agricultural Repository, No. 3. vol. VI. particularly those intended for seed the next season. Eight rows on one side, and the whole length of the field, was the sugar beet, from seed I imported two years since from France, and am much pleased with them; I think they produce fully as much as the mangel wurtzel, weigh five or six pounds per bushel heavier; and contain more saccharine matter than any vegetable we cultivate; I therefore intend next year to cultivate largely of them; and also to raise much of their seed from very fine roots selected for that purpose, and such as I sent to the Society's Hall on the day of the late Cattle Show. Very

many of both kinds weighed twelve and fourteen pounds each. I weighed about seventy baskets of the mangel wurtzel to give me a fair average of the crop, having filled the carts as nearly equal as possible, and the produce was fifty-four thousand four hundred and fifty-eight pounds, which, at fifty-six pounds, make nine hundred and seventy-two and a half bushels on one acre and forty-three rods of land, as appears by the surveyor's certificate herewith transmitted. The entire expense of cultivation was sixty dollars and 14-100; at this rate each bushel costs a little more than six and a quarter cents, and the produce forty-two thousand nine hundred and twenty pounds, or seven hundred sixty-two and a half bushels per acre.

In the same field, and directly alongside, potatoes were cultivated, which fell considerably short of two hundred bushels per acre. The labour in gathering potatoes, is much more than the mangel wurtzel; and on the whole, cultivation about equal. I think one bushel of potatoes about equal to one and a half of mangel wurtzel for feeding animals; the same might be allowed of carrots for milch cows, for other animals not so much; all cattle are fond of mangel wurtzel; they are not subject to be attacked as the ruta бага, by the fly in seed leaf, or the cabbage louse, which sometimes destroys whole crops, and they give no bad flavor to milk. On the whole, after five or six years cultivation of the mangel wurtzel, I feel convinced it is the most profitable root to cultivate for consumption on a farm, and the past season mine kept perfectly well till June."

That Messrs. Tristram and Henry Little of Newbury, are entitled to the Society's premium of \$20, for having raised the greatest quantity of turnips, being nine hundred and eight bushels on one acre. "The lot is on the north side of a small swell on our farm in said town, the soil is a yellow loam, or a gravelly bottom, and had been down to grass two years; in July 1823, the lot was mowed and the hay made on the same land, and the produce was one ton and eight

hundred; the swards was then ploughed as deep as would turn over, and twice harrowed, furrows were then opened at the distance of three feet apart, ten ox cart loads of manure, mixed with ten loads of marsh mud, or sod, was put into the furrows, which were covered with a plough; one pound of seed was sowed with a machine, one row on each ridge, and a roller was made to pass over the same, which completed the sowing; as soon as the third leaf was grown, they were thinned to the distance of one foot apart in the rows, after that they were three times ploughed between the rows, and twice hoed; the harvesting was in November, and the product was nine hundred and eight bushels. The labour of cultivating and harvesting the above crops, exclusive of hauling them to market, for they were all sold, was for the hay, two days work, and for the turnips twenty-six and a half days."

Messrs. Tristram and Henry Little also claim the premium of \$20, for raising the greatest quantity of common turnips, after any other crop in the same season, having raised nine hundred and eight bushels on one acre, and the same is awarded to them.

Claims for premiums were also exhibited to your Committee, by the following persons, for raising the greatest quantity of Indian corn on one acre of land, to wit: Messrs. Tristram and Henry Little, of Newbury, raised one hundred and fifteen bushels and one quart; Mr. John Lees, of ditto, one hundred thirteen and a half bushels; Mr. Fitch Winchester, of Southboro', one hundred and two bushels and seventeen quarts; Gen. William Hull, of Newton, raised one hundred and thirteen bushels of corn on one acre and twenty-five rods—Gen. Hull sent to your Committee some fine ears of corn, taken from stalks cut from his field early in September last, before there was any frost, and while corn was in the milk; "in the last of October the corn was found to be perfectly ripe, and sound, and the stalks sufficiently cured to be packed in the mow." The result of this experiment ap-

pears to be highly satisfactory, and Gen. Hull and your Committee recommend that his communication on the subject be published in the Society's Journal. Mr. Joseph Little, of Newbury, raised six hundred and thirty-six bushels of common turnips on one acre. Mr. Benjamin Savory, of Byfield, raised fifty bushels of spring wheat on one acre and one hundred and forty-six rods. Mr. Ebenezer Gates, of Worcester, raised fifty-five bushels of winter rye on one acre and one hundred and thirty rods; no premium was offered the present year for raising the greatest quantity of rye, but your Committee are induced to recommend that the Treasurer be authorized to pay said Ebenezer Gates, the sum of \$20.

For the most satisfactory experiment to ascertain the best mode of raising Indian corn, whether in hills or in rows; for raising the greatest quantity of vegetables; grain, peas, and beans excepted, for winter consumption of the stock on his own farm, and not for sale;—for raising the greatest quantity of winter wheat on one acre; for raising the greatest crop of millet on one acre, cut and cured for hay; for raising the greatest quantity of carrots, not less than six hundred bushels, on one acre; for raising the greatest quantity of potatoes on one acre, not less than five hundred bushels; for raising the greatest quantity of common beets on one acre, not less than six hundred bushels; for raising the greatest quantity of parsnips on one acre, not less than four hundred bushels; for raising the greatest quantity of Ruta Baga on one acre, not less than six hundred bushels; for raising the greatest quantity of onions on one acre, not less than six hundred bushels; for raising the greatest quantity of cabbages on one acre, not less than twenty-five tons weight, free from earth when weighed; for the most satisfactory evidence on soiling cattle, not less than six in number, and through the whole season, together with a particular account of the food given, and how cultivated; for making the experiment of turning in green crops as a manure, on a tract not less than one acre, and proving its utility and

cheapness, giving a particular account of the process and result; for proving by actual experiment the best season and mode of laying down lands to grass, whether spring, summer, or fall seeding be preferable, and with or without grain on different soils; for raising the greatest quantity of dry peas on one acre, not less than thirty bushels; for raising the greatest quantity of dry beans on one acre, not less than thirty bushels; for giving proof of having produced the largest quantity of dressed flax, raised on half of an acre, not less than two hundred and fifty pounds; for taking up in one season, on his own farm, the greatest quantity of honey, and at the same time exhibiting superior skill in the management of Bees; for proving by satisfactory experiments to the satisfaction of the Trustees, the utility and comparative value of the cobs of Indian corn, when used with or without the grain itself, ground or broken, no claims for premiums have been exhibited.

For the Committee,

THOS. L. WINTHROP, *Chairman.*

Boston, Dec. 13, 1823.

[The following communications were made by sundry gentlemen who were competitors for the premiums on Agricultural Productions, but did not obtain them, owing to the greater success of others. We thought it but a proper piece of respect to them to publish their communications.—By them the public will learn also, that the zeal and skill of our farmers is extensively diffused.]

ON INDIAN CORN.

IN July 1821, after mowing the piece of land containing about one and three quarters of an acre, I ploughed and planted the same with Virginia Corn for fodder, using about ten loads of yard manure in the hill, and hoeing it once, I commenced cutting and giving them to my cattle the first of October, at which time they began to tassel; after using them all, I again ploughed it. In the spring of 1822, twice ploughed the ground after spreading about twenty-five loads of

green barn manure and putting a shovel full of manure in each hill, procured from the yarding of ten cows and five hogs together, drawn out of the yard into a heap the fall before, I planted with corn and pumpkin seed. I discovered in July that the corn was suffering great injury from the pumpkin vines, by their running up the corn and shading the ground by covering it in such a manner, that if there was no corn upon the ground, it would have been completely covered with pumpkin vines, it finally produced sixty bushels to the acre, of corn, and a few loads of pumpkins. After harvesting I again ploughed it, and in the spring of 1823, I ploughed it three times and harrowed it as often, previously spreading about twenty-five loads of green barn manure, then furrowing about three feet apart each way, I planted with five kernels of yellow and red eight rowed corn, putting a shovel full of yard manure in each hill, produced from yarding the above mentioned stock, a sufficient quantity of loam being usually carted into the yard, as would increase the whole to about one hundred loads, all which was used upon that $1\frac{3}{4}$ acres, and another containing one and a half acre, which is nearly if not quite as good as the acre which is represented being cultivated with equal expence of manure and labour, finished planting all my corn prior to the tenth of May, to which cause I attribute solely the success which I have in the crop over former years, having been at less than half the expence in hoeing than when I planted in rows for the three last years, and having nor using any greater quantity of manure in neither of which years did not finish planting corn until the last week in May, it being commonly said it would not do before the season was so far advanced as not to be liable to cold storm; by the first of July I had finished hoeing corn three times rather slightly, not making much hills nor ploughing among it but little, cut no suckers although very many, except a few hills which appeared not any better for it, on the 27th of September I harvested forty hills (which I expected would make the hundreth part of the number of hills con-

tained in an acre, which when measured produced four thousand and eighty hills) in different places the first ten hills there was nine quarts, second ten hills twelve quarts, third ten hills ten quarts, fourth ten hills nine quarts, making in the whole forty quarts, which I spread thin for drying, on the twenty-third of October again measured the same and found only thirty quarts. I then examined the corn in the field and harvested ten hills adjoining the second ten hills, where there was twelve quarts and there obtained nine and a half quarts. On the twenty-seventh of October the whole was harvested and measured one hundred and two bushels and seventeen quarts according to the certificate produced, to which adding twenty-eight pound and three quarters of corn, which was overlooked and found in cutting and carrying off the bottom stalks, would increase it to one hundred and two bushels and thirty quarts. If the whole had been harvested on the twenty-seventh September; at which time forty hills produced forty quarts, there being four thousand and eighty hills to the acre, the ratio must have then exceeded one hundred and twenty-seven bushels with as much certainty as when on the twenty-seventh of October—by reducing that estimation one fifth part (being the quantity shrunk by standing in the field, as appeared in the harvesting the ten hills and obtaining nine and a half quarts adjoining the ten hills which produced twelve quarts) gave one hundred and two bushels, the quantity found in harvesting; the expenses of cultivating have not been kept, not contemplating exhibiting it for premium till about harvest time, but was at no additional expence in cultivating from what is usual and generally done except one additional ploughing and harrowing; the value of the whole labour and manure used I could not have obtained here more for it than twenty-five dollars to the acre. The cultivation of the land prior to the ploughing in 1821, was in being sown with herds grass and clover seed in the spring of 1812, and continued mowing without the use of any manure every season afterwards, until plough-

ed up in 1821, at which time the crop of hay had become very light. The soil a black loam.

FITCH WINCHESTER.

Southboro', Nov. 25, 1823.

The above remarks respecting the quantity of corn supposed to be on the twenty-seventh September, I should not have made, had I not afterwards noticed (on the twenty-fourth of October, by looking at the Committee's report in a newspaper) that the premium awarded last year was for corn harvested on the twenty-seventh September, although it so happened on the same day of this year that I harvested the forty-hills, it was solely for the purpose of ascertaining whether the probable quantity was such as would give me encouragement to enter it for premium, in view of which had I before known it and harvested on that day and produced evidence of there being one hundred and twenty-seven bushels which I have no doubt of, another claimant harvesting on the same day should exhibit one hundred and twenty-five bushels of exactly equal weight to the bushel, it would not then be certain which of the two would be entitled to the premium for raising the quantity of sound merchantable corn, unless a bushel (or some quantity) of each corn is shelled on the same day in which they were harvested and measured, and kept until they both become perfectly dry so as to ascertain the exact shrink of each.

Newton, 28th November, 1823.

INDIAN CORN.

[To the Trustees of the Massachusetts Agricultural Society.]

I HAVE the present year, caused the Indian corn, gathered from an acre and twenty-five rods of my corn field, to be

measured, and it produced two hundred and twenty-six bushels of ears. A part of it only has been shelled, and two bushels of ears produced a little more than a bushel of shelled corn.

In July 1822, the land was mowed, and yielded about a ton of hay to the acre.

Early in September of the same year, it was ploughed. It remained in this situation, until April 1823, when it was harrowed. A few days after harrowing, it was ploughed across the furrows about two inches deeper than the first ploughing in September, when it was first broke up. After remaining in this situation a week, it was harrowed thoroughly, until the principal part of the sods were displaced and pulverized. About the middle of May, it was furrowed with a horse plough, the furrows three and a half feet apart, for planting. It was planted about the 20th of May, in hills, three feet and a half apart one way, and one foot and a half the other way.

About eight cords of compost manure were put on this acre, and twenty-five rods. It was composed of barn yard manure, made in the summer of 1822, hog dung, and the clearing of ditches, in equal quantities. This part of the manure was carted into the field, and mixed in the autumn of 1822. In April 1823, it was shovelled over, and six casks of unslacked lime was equally mixed, and covered in the heaps, which contained about forty cords. After lying about two weeks in this situation, it was again shovelled over, and the lime was found to be slacked and pulverized, and the whole heap had become a fine body of compost manure. Every part appeared to be entirely dissolved and pulverized.

The corn was planted about the 20th of May, and as I before observed, about eight cords of manure taken from the before described heap were carted on this acre and twenty-five rods. A common shovel full was put to each hill in the furrows which had been ploughed eighteen inches apart.

The corn was then planted four kernels in a hill, five inches apart. It was ploughed with an horse plough twice, and twice hoed. After the second hoeing, the ground was left nearly level.

This acre and twenty-five rods was measured from a field of about six acres, the greatest part of which was planted in the manner here described, which I consider, from several years experience, the best mode of planting Indian corn. On the remaining part of this field the residue of the heap of manure was carted, in about equal quantities to the acre, with the acre and twenty-five rods. Some part of the field was planted in hills three and an half feet apart each way, and some part in rows three and a half feet apart. The part first described yielded the greatest quantity of corn, although the quality of the land, and the quantity and quality of the manure, were the same.

It was my intention to have ploughed and hoed the whole field a third time, but the corn had become so large, and spread to such a degree, that a horse could not travel through it without injury. There was however scarcely a weed or a spire of grass in the whole field. That part planted in rows yielded more, than that planted in hills, three and an half feet each way, but not so much as that planted in the manner first described.

No more attention was paid to the acre and twenty-five rods, than to the other part of the field, and it was not done under any expectation of obtaining the society's premium for the largest quantity, or the best mode of cultivating this article. If however it merits any distinction, I shall be happy.

With great respect, I am your most obedient servant,

WM. HULL.

Newton, 29th November, 1823.

This may certify that I assisted in gathering and measuring the Indian corn which was raised on an acre and twen-

ty-five rods of land belonging to William Hull, Esq. of Newton, and it amounted to two hundred and twenty-six bushels of ears.

And I likewise certify that I have assisted in shelling and measuring some part of the corn, since, and two bushels of ears have produced a bushel and half a pint of shelled corn. I likewise assisted in planting, cultivating, and in preparing the manure for the said field, and do certify that the statement made by William Hull, Esq. is correct and true.

BENJAMIN LEE.

COMMONWEALTH OF MASSACHUSETTS.

Middlesex, ss.

December 1st, 1823.

Personally appeared Benjamin Lee, the subscriber, and made oath that the same was just and true, before me,

DANIEL JACKSON, *Justice Peace.*

Newton, 28th November, 1823.

This may certify, that I have measured a piece of land on the farm of William Hull, Esq. of Newton, on which Indian corn was raised the present year, and it contained one acre and twenty-five rods.

INCREASE S. DAVIS.

COMMONWEALTH OF MASSACHUSETTS.

Middlesex, ss.

December 2, 1823.

Personally appeared, Mr. Increase S. Davis, and affirmed that the certificate by him subscribed was true, before me,

DANIEL JACKSON, *Justice Peace.*

Newbury, Nov. 15, 1823.

[To the Committee on Indian Corn.]

GENTLEMEN,

THE following is a statement of the cultivation and production of an acre of Indian corn raised by the subscriber in Byfield the present year. The soil is a dark loam and very fertile, perfectly free from stones, and quite level. In 1822

it was planted with corn and produced equal to one hundred and eighteen bushels. In April, 1823, there was about seven exact loads of barnyard manure spread upon the acre and ploughed in. The first of May it was again ploughed and holed three and a half feet apart, and eight loads of compost manure from the hog-yard were put into the holes. The depth of ploughing both times was about six inches: five grains of corn were placed in each hill on the manure and covered with a hoe. The corn was of the eight rowed kind, and weighed when gathered fifty-nine and a half pounds to the bushel. It was hoed three different times, the plough was used the first and second time hoeing; the third time the hoe only was used. It may be proper here to observe, that at the second hoeing the number of stalks in each hill was reduced to four, and in consequence of some high winds it was observed at the time of topping the stalks, that the average number of stalks remaining would not exceed three and a half. The stalks were topped about the middle of September, and I consider the value to be equal to two tons of English hay. It was harvested the middle of October, and there were one hundred and ninety-nine bushels of ears, which made by estimation one hundred and thirteen and a half bushels of shelled corn. The expense of cultivation, estimating labour at seventy cents per day, will be as follows, viz.:

	15 loads manure at \$1 per load	\$15 00
April 28,	Ploughing	1 40
May 6,	Cross ploughing	1 40
" 8,	Putting manure into holes and planting	2 10
June 3,	Hoeing first time	1 00
" 12,	Hoeing second time	1 00
" 20,	Hoeing third time	70
July 10,	Destroying weeds	35
Sept. 9,	Topping stalks	2 10
Oct. 14 and 15,	Harvesting, measuring, &c.	5 60

\$30 65

Yours respectfully,

JOHN LEES.

Newbury, Nov. 26, 1823.

[To the Trustees of the Massachusetts Agricultural Society.]

GENTLEMEN,

THE following is a statement of the cultivation and production of a lot of Indian corn raised by the subscriber in Newbury. The soil as to quality is similar over the lot, of a clay loam, and had been mowed three years. In November, 1822, there was drawn on to one half of the lot twelve ox cart loads of yard manure, spread on the grass stubble, and then ploughed; the other part was not ploughed until May, 1823. The part that was ploughed in the fall was then cross ploughed, then harrowed; the whole lot which contained about two acres was then holed about three and a half feet apart. There was ten cord of compost manure put in the holes on the whole lot, and was planted between the 15th and 25th of May, with five grains in each hole on the manure and covered with a hoe; the corn was the eight rowed yellow kind, selected the fall before from the most fruitful stalks. It was hoed four times: the stalks were topped about the 20th of September. The suckers were taken out at the same time. About the 20th of October there was one acre staked off by a surveyor, which acre was gathered, husked and measured; and there was two hundred and thirty bushels of ears, and a fraction over. Six bushels of ears were shelled, and it produced three bushels of shelled corn, from which there was one hundred and fifteen bushels and one quart of sound corn from one acre of land. The other part of the lot which was not ploughed till spring and no manure ploughed in, but managed otherwise alike, was gathered soon after the other, and produced about one hundred bushels to the acre. The labour of cultivating and harvesting the above crop was about twenty days work to the acre. The part that was ploughed in the fall and cross ploughed in the

spring worked as much lighter through the summer as to repay the extra ploughing. The weight of the corn was fifty-eight pounds to the bushel. The stalk and stover we estimate equal to one ton and a half of upland hay from one acre.

Your respectful servants,

TRISTRAM LITTLE.

HENRY LITTLE.

This may certify that I assisted in cultivating and harvesting and measuring the above crop of corn, and I believe the statement to be correct.

JOHN SMITH.

This may certify that I measured and staked off one acre of land on which corn was growing, for Tristram Little, which contained one acre and no more, to the best of my skill and judgment.

SILAS MOODY.

Essex, ss.

Newbury, Nov. 26, 1823.

Personally appeared, Tristram Little and Henry Little, and Silas Moody, Esq. and John Smith, and severally made oath that the above communications by them respectively signed, contain the truth. Before me,

EBEN'R. MARCH, *Justice of the Peace.*

Newbury, Nov. 25, 1823.

[To Benjamin Guild, Esq. Assistant Secretary to the Massachusetts Agricultural Society.]

SIR,

THE production of an acre of land cultivated with English Turnips, by Joseph Little on the farm owned by him and his father Silas Little, Esq. in Newbury, is here offered for premium. The soil is a clay loam, and had laid to grass for several years. The 29th of June, 1823, I took off the grass and it made short of a ton of hay. Ploughed the ground

the 1st day of July, and harrowed and hauled on about thirty cart loads of compost manure, which I put into furrows made three feet apart on the second and third day, and after the manure was covered with a double mould board plough. The seed was sown at different times, viz: from the 3d to the 8th of July, and used one and a half pound of seed, and after seeding, the ridges were rolled with a hand roller. When the turnips were up, and out of the way of flies, they were thinned at the distance of more than one foot (which I think injured the crop,) nevertheless I gathered six hundred and thirty-six bushels on the last of October, and I calculate the whole expense of manure and labour did not exceed forty-eight dollars; and that the turnips will bring eighty and the hay ten.

Yours with great respect, JOSEPH LITTLE.

This may certify that I have measured and staked off the above land cultivated with turnips, to the best of my knowledge and judgment, and there is but one acre; and that I did assist in harvesting them, and measured them myself, and there was six hundred and thirty-six bushels.

PIKE NOYES.

I hereby certify that I employed the above named Pike Noyes, to survey, harvest, and measure, the above stated acre of turnips.

JOSEPH LITTLE.

Newbury, Nov. 27, 1823.

The forenamed Pike Noyes and Joseph Little personally appeared and made oath to the above certificates. Before me,

SILAS MOODY, *Justice of the Peace.*



Newton, 24th November, 1823.

INDIAN CORN.

[To the Trustees of the Massachusetts Agricultural Society.]

THE first week in September last, before there was any frost, and while the corn was in the milk, I cut up about

twenty hills of my corn, and the next day bound the stalks with the ears on, in small bundles and stacked them in the field, where the stack remained until the last of October. It was then carried into the barn, and the corn taken from the stalks. The corn was perfectly ripe, and sound, and the stalks sufficiently cured, to be packed in the mow. I send a few ears, taken from the stalks, without selection, for the inspection of your honourable board. A belief, that a knowledge of this fact, may under some circumstances, be useful to the agricultural interest, has induced me to make the communication. It is not uncommon to have our corn fields injured; and sometimes destroyed by early frosts in the autumn. To guard against this calamity, must be a desirable object.

In addition to the preservation of the corn, there are other advantages, which may be derived from the practice. The earlier the stalks are cut, the more valuable they are. In this instance, the bottom parts were nearly as good as the tops. All the leaves were retained, and although sufficiently cured, did not crumble in any degree. There may be another advantage in removing the corn from the ground where it grows at so early a season.

It seems now to be a settled opinion,* that there is no season so favourable for sowing grass seed as the early part of September. In cultivating the corn, the ground, having been frequently ploughed and hoed during the summer, is in the best preparation for this important object. If the corn stands to ripen on the ground, where it was planted, it is too late in the season for the purpose. The ground, consequently, cannot be laid down to grass, until the next spring, and one year's crop of hay is lost. This experiment has been made on a very small scale, and although it has succeeded far beyond my expectations, yet I would not recommend the practice, excepting on a similar scale, until further experiments are made.

* We do not consider this as a settled opinion. EDITORS.

If however I had a field of corn, late in its growth, and there was a prospect of its being injured by frost, I should not hesitate to adopt the practice.

I have reason to believe, that in the event of an early, and unexpected frost, while the corn is in the milk, there is no mode so effectual for its preservation as to cut it up immediately after the frost, and stack it in the manner I have mentioned.

With much respect, I am your most obedient servant,

WM. HULL.

Roxbury, 16th December, 1823.

INDIAN CORN.

[To the Corresponding Secretary of the Massachusetts Agricultural Society.]

DEAR SIR,

AMONG the papers read to the trustees on Saturday last, I observed one from General Hull, on an experiment made by him the past season in cutting a few hills of Indian corn, by the ground in September and stacking it, which by the sample exhibited was well ripened, he appears to think it a new mode of treatment. I at the same time mentioned the same thing being done at a merino sheep farm of mine on an island in the Winnipiseoga Lake in New Hampshire, on about six acres of corn, the subject appearing to be new to the trustees, some of them thought it would be well to add a note to the general's communication in confirmation; with which I now with pleasure comply.

About the 8th of September last I was at the Island, on one part of which, was five or six acres of corn in three or four different patches, (this Island of near five hundred acres is in almost two equal parts divided in the centre by a neck of only eight or ten rods wide, one part is intended for mowing

and cultivation, the other for pasture, so as to require as few fences as possible) the season had been uncommonly dry and the pastures generally very short, it was proposed to me by several good farmers, as a common method in that part of the country, to cut the corn near to the ground and put it in small stacks near the barn, and place a temporary fence round them, by which means my sheep could have the range of the whole island; I was pleased with the thing and it was done before the 12th of September, the farmers in the neighbourhood were generally topping their corn therefore it was considerably dry.

I was at the island again about the 20th of November, and found the corn in cribs, and in very fine order, much superior to mine at Roxbury, which was not harvested till about the 10th of November, all the stocks, butts and leaves are excellent fodder, when by our usual mode the butts are of very little value.

I think considerable labour is saved by adopting this method although a little more handling in the husking will be required, which however is much more than repaid by the better quality of the fodder; and more particularly, as it will give twice to lay down the ground with winter grain, or grass seed only, at a season too, when it is now becoming generally considered the best time for sowing them. In four or five instances on my farm, within ten years, I have sown grass seeds in the autumn without grain, and even as late in one year as 24th of December, and am decidedly of opinion that the grass takes better, gets better hold and is more lasting than if sown in spring, with barley or other grain, which being cut in the hottest season, leaves the young tender grass too suddenly exposed and is often burnt up.

Since the meeting of Saturday, I have looked into the American Farmer, third and fourth Volumes, and find several valuable pieces on the subject of cutting corn early and

stacking it, in Maryland and Virginia; where it appears to be of great importance, in their mode of culture, by giving time to plough and sow their fall wheat in good season, there are however some writers who oppose it; but on the whole I think the plan excellent, but care should be taken not to do it too early; I should think it perfectly safe, at the time we usually top it; and should recommend the stacks being small, not much larger than the *top stocks* are usually made, to give a better chance for air to pass freely, that it may more speedily be fit to house; in Virginia they put the corn of two hundred fifty to four hundred hills in a stack, which I should be apprehensive would not answer so well in our climate.

I hope Gen. Hull's hint will be improved upon, the next season, and the result reported to the Society.

I am, dear sir, very respectfully yours,

JOHN PRINCE.

WHEAT.

Byfield, September 1st, 1823.

[To the Trustees of the Massachusetts Agricultural Society.]

THIS may certify that I the subscriber of the town of Newbury, was employed by Mr. Benjamin Savory of Newbury, parish of Byfield to thresh out a quantity of wheat raised by said Savory and clean and measure the same. I was assisted in the work by Rufus Pray, and after cleaning the wheat by passing it through the winnowing mill it measured fifty bushels of clean wheat, over and beside one half bushel of the wheat unhulled or the tailings, so called. The above wheat was all that was raised by said Savory the present year, was red spring wheat and as I was informed was the Gilman wheat. I have also attended and saw one bushel

of the above wheat measured and carefully weighed and the weight was fifty-seven pounds and a quarter.

DAVID CLIFFORD.

Byfield, Sept. 1, 1823.

I the subscriber assisted Mr. David Clifford in threshing, cleaning and measuring the wheat raised by Mr. Benjamin Savory in Newbury, parish of Byfield, county of Essex, and it measured when well cleaned, fifty bushels, beside one half bushel of the taling so called. I also saw one bushel of the above wheat measured and it weighed fifty-seven pounds and one quarter. I also certify that I have worked with said Savory for the year past, assisted in preparing the ground and sowing the wheat and the above is all that was raised on the farm the present season and was in one lot or patch.

RUFUS PRAY.

Byfield, November 9th, 1823.

I the subscriber of Newbury, county of Essex, and parish of Byfield do hereby certify that I sowed a piece of wheat in April last, and the ground was cultivated the year previous in manner following, viz. it was broke up in the fall of 1821; in the spring of 1822, it was ploughed, well harrowed and planted with potatoes and a large shovel full of manure put in each hill, it yielded a good crop, and in the fall of 1822, after the crop was taken off it was ploughed twice, then harrowed fine and laid in high ridges through the winter, in the spring of 1823, before the frost was entirely out, the ridges were split by ploughing, then cross ploughed very deep, quite to the plough beam, and well harrowed, after which thirty cart loads of good stable and hog manure was spread on the ground and ploughed in deep, it was then well harrowed and four bushels and three quarters of well washed wheat which had been soaked four days in a strong pickle, sowed broad cast, ploughed in with a small

seed plough, bush harrowed and rolled with a heavy land roller, it came up well, and grew well through the season, and hardly a single blade blighted, smutty or rusty could be found in the piece, when threshed and cleaned it measured fifty bushels of well cleaned sound wheat, and there remained one heaped half bushel of wheat not hulled, the tailings so called, it weighed fifty-seven and one quarter pounds per bushel, and a sample accompanies the certificates, the soil was a deep yellow loam on a hard pan mixed with clay.

BENJ. SAVORY.

Essex, ss.

November 17th, 1823.

Personally appeared David Clifford and Rufus Pray, and made solemn oath to the foregoing statement which they have each of them subscribed respecting the wheat raised by Mr. Benjamin Savory of Byfield parish, town of Newbury.

I would also state that the above named persons, I have known them for a number of years. I think them steady, well behaved men and entitled to credit it.

DANIEL HALE, *Justice Peace.*

November 17th, 1823.

This day surveyed for Mr. Benjamin Savory, the land where the aforementioned wheat grew which contained one acre and one hundred and forty-six rods.

JOHN NORTHEND.

Essex, ss.

November 17th, 1823.

Personally appeared the above named John Northend, and made solemn oath to the statement above made by him, respecting the measurement of the land on which Mr. Savory's wheat grew, before me,

DANIEL HALE, *Justice Peace.*

Essex, ss.

November 18th, 1823.

Personally appeared, Benjamin Savory, above named and

made solemn oath, that his statement, respecting ploughing the ground, sowing and raising the above mentioned wheat, is a correct statement, before me,

DANIEL HALE, *Justice Peace.*

CASHMERE GOATS.

[To the President of the Agricultural Society.]

A MEMOIR of Messrs. Ternaux and Jaubert, read before the Royal Academy of Sciences at Paris having been sent me, I deemed the subject of which it treated would be interesting to the public, and handed an extract therefrom, with some introductory observations, to the editor of the New-England Farmer, which was published January 11th last, in that useful paper.

This subject, so interesting to naturalists, and destined to become important in the progress of our manufactures, arrested the attention of the Trustees of the Agricultural Society of Massachusetts. At their last publication of premiums, they offered "the sum of one hundred dollars to the person who should import into this State, from Europe, a male and female goat of the pure Cashmere breed."

They further requested the subscriber to procure, through his friends in France, such an account of this animal as to thrift, mode of treatment, productiveness, &c. as might enable them to form the most correct judgment how far the climate might suit, and general circumstances make its introduction here expedient.

The desired information has been obtained by my friends from Messrs. Ternaux themselves, who state that the animal is naturalized in France and promises the most satisfactory increase, as well as benefit to manufactures.

To this account, it will appear, a practical mode of

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treatment with a flock is added as observed in France. The manner of feeding of animals, and division of pasture will vary according to the climate, condition or culture, &c. &c. But experience must be considered as a guide of some utility, especially in the introduction of a new and valuable race.

The prices, it will be perceived, vary from fifteen dollars, to seventy-five dollars, a head. The duty on export is very trifling, say about four cents each.

The patronage which has been exercised in the encouragement given to these meritorious individuals, Messrs. Ternaux and Jaubert, is as honourable to the government of France, as the enterprize and success of the expedition is to those gentlemen. The diffusion of the knowledge acquired and of the benefit of the discovery, of which, it will be seen, all may avail, is of a like honourable character. The liberal communication of information by Messrs. Ternaux, and the offer of facility in the export to this country will probably be used by the Society in the course of the next season, at its own charge and risque with a view to that future improvement of our manufactures to which the Massachusetts Agricultural Society always wish to look with a steady attention.

A few remarks only, that these papers may be well understood, will follow.

Until the issue of this expedition it was unknown what animal gave the material of the Cashmere (or by some called Camel's Hair) Shawl. Of these we see the cheaper kinds, but the most valuable are of incredible cost. This question is now satisfactorily settled by these inquisitive travellers.

The route taken was first to Odessa, which is in Russia, on the coast of the Black Sea, Lon. 30, 45 East, Latitude 46, 30 North, a place containing 40,000 inhabitants; next to Tungarock or Tanganrok near the Sea of Azof. Then to Astrachan in Asia on the Caspian Sea, Lon. 47, 44 East,

Lat. 46, 18 North. This place is the See of a Bishop, and contains within its walls and environs a population of 70,000. Then passing to the foot of Mount Caucasus, between Astrachan and Oremburg, a wandering tribe were found, who possessed the animals sought after.

To illustrate the good fortune of these travellers, it need only to be stated that, if they could, from 1229 goats, reach France with only about 400, their disappointment must have been inevitable had they have proceeded from the Caspian Sea, to Thibet on the borders of India. The journey must have been insupportable, and to no good effect.

I am, sir, very respectfully your's,

JOHN WELLES.

Paris, April 8th, 1823.

John Welles, Esq.

DEAR SIR,

I HAD the pleasure to receive your letters requesting me to obtain for you the best possible information respecting the Thibet Goat lately introduced into France.

I have made the necessary application to Messrs. Ternaux who have very politely and readily transmitted to me their opinion upon the importation and naturalization in France, by Messrs. Ternaux & Jaubert of the Thibetian Race.

The animals which were imported as well as those bred here continue, say they, to prosper in the most satisfactory manner, particularly those which inhabit a high and rocky country. In general humidity and rich pasturage are pernicious to them.

To this information Messrs. Ternaux add, that the goats have been sold from eighty francs, (fifteen dollars,) to four hundred francs, (seventy-five dollars,) per head, according to the beauty of the animal, and pays a duty of only three cents per head, upon exportation.

To enter into as many details as possible as to the modes of treating these goats, I will relate to you the manner, a friend of mine who bought ten of Mr. Ternaux two years ago treated his. Some of these goats were those imported, and others were those bred in France.

He had constructed a fold fifteen feet in length, to ten feet in width, with racks all round a bed of straw which is renewed every ten or fifteen days. The fold should be as little confined as possible in order that the air may circulate freely. It suffices that it should be covered with a simple roof, and at a small height, the other parts in lattice work or open. A trough for water. They give them early in the morning a bundle of hay, (say twelve pounds,) and the rest in vegetables and herbs from the kitchen garden. As soon as the dew is passed or the grass dry after rain, they let them out into the field, in a square surrounded with a barrier or portable fence, each barrier from four feet in width to six feet in length, twelve in all, which makes a square of sixty feet. This extent of ground is sufficient for one day's food and sometimes two according as the grass is more or less grown. By the means of these barriers you go over the whole extent of ground and the goats have always fresh pasturage. When they have in this manner gone over the field, you begin again at the first place, avoiding only to return too soon before the grass may have well grown, otherwise they will not eat. At the setting of the sun they are taken back to the fold and you give them another bundle of after grass or second crop hay. This last ration is only necessary in winter, when there is not much in the field or greens from the garden. They give them also every evening a peck of oats and bran mixed together, and once a week you add two handfuls of coarse salt. In the most humid season you double the quantity of salt. If you perceive the goats are too heated you give them bran without oats, if the reverse you give them oats and salt without bran. These animals are very docile and

easily led. It is generally in the month of February, and March that the mother has her young after having carried it six months. At the birth of the young goat, you give to the mother a little more oats and bran. It is in the month of April you gather the down otherwise called the Cashmere wool, you take it off in combing the outside-hair, you must when you perceive when the down begins to fall in the fold or on the grass, comb them a little every day with a comb that has the teeth very closely set. From five goats my friend gathered nearly two pounds of down last year, they are subject to the same diseases as sheep. Wet or damp ground does not suit them. These diseases manifest themselves by humours and eruptions of the skin and great increase or swelling of the hoofs. These animals eat of every sort of vegetable, they are fond of the twigs of trees, only it is necessary to prevent their eating of pine or fir trees or any evergreen (that is to say, any trees that remain green the year round) these trees are a sort of poison to them.

The down has been made use of in some of our manufactures to a very striking improvement. It will need however some time and experience to realize all the advantages which have been anticipated. If I can hereafter, in this, or any other subject connected with the laudable purposes of the society with which you are connected, render any services you will freely command.

As the writer is not an agriculturist I do not feel at liberty to use my friend's name.

Extract from a Memoir read before the Royal Academy of Sciences.

THE CASHMERE GOAT AND ITS IMPORTATION INTO FRANCE.

THE sight of these shawls, which are brought from Asia, and which spread all over Europe, make a part in the presents of the sovereigns of the east, and adorn the heads and waists of the rich inhabitants of those countries, gave rise to the

question among the naturalists of Europe, what species of animal produced the material from which such precious stuffs were made. Travellers gave no satisfactory information upon this subject. The general opinion was, that cashmeres were produced from a goat, but the particular species was not determined. The importation which has just been made, clears up, in part, this difficulty, for these animals produce a down exactly like that of which the most rare shawls are made; I say in part, because it is not impossible that wool may be also employed for this purpose, or that different kinds of the goat may unite to bring the manufacture to perfection. I shall describe particularly those which I have seen upon their arrival at two of our Mediterranean ports.

Their usual height is about 25 inches from the ground to the top of the back, and the length from the beginning of the tail to the head, three feet. Almost all have horns, which are straight, black, and for the most part round; those of some males, as well as females, are thick, furry, white in the majority of individuals, some brown or black, several spotted. They are formed of long hairs, which cover the legs, in part, and a very soft down. The latter is fine in proportion as the hair is long; the quality of one may be known from the other. This down grows near the skin, from which it separates and forms tufts, which can be drawn away by a comb or by the hand. Except in the case of an absolute prohibition, it appears as if our manufacturers could have no interest in importing these downy cashmere goats into France, for the material may be procured in the way of commerce; it would be sufficient for them to imitate the stuff which bears this name. M. Ternaux, so well known by his beautiful establishments, was not of this opinion. He had received, by the way of Russia, down enough to make some shawls; his success gave him the idea of procuring the animal on whose body nature had placed this down. The undertaking was not an easy one. He found M. Jaubert, Master of requests, and Professor of the Turkish language, a

man of zeal and intelligence, who was not to be repulsed by obstacles, and who was much attached to this country. This gentleman had already travelled in the Levant, and could make himself understood among the different nations. He was willing to undertake the expedition.

In order to obtain the protection of government, M. Ternaux presented him to the Duke of Richelieu, then Minister of foreign affairs. This Minister, who acknowledged the utility of the project, made a contract with Ternaux and Jaubert, in the name of the king, by which Ternaux was to receive a premium of encouragement if the expedition succeeded. The government was to take a hundred goats at a high price. In consequence of this, Jaubert left Paris in the month of April, 1818, recommended by the Duke of Richelieu to the notice of the Emperor of Russia. This sovereign gave orders in his dominions that the French traveller should be furnished with all the facilities he needed. Jaubert went first to Odessa, Tangarock and Astracan, to the camp of General Jermoloff, under the Caucasus, taking every where information from the Boukars respecting the Kirghiz and the Armenians, who frequent and inhabit the last of the cities. He was informed that there existed among the numerous hordes of Kirghiz (a wandering people who came into Boukaria,) on the borders of Oueal, a species of goats which was almost always of a dazzling whiteness, and which bore every year, in the month of June, a remarkable fleece.—The samples shown him convinced him of the conformity of this down with that which came into France by the way of Russia.

The discovery was more interesting to him, as it saved his time and a troublesome journey in crossing into Thibet, by Persia and Cashmere. He was not deceived, and in some hundred versts from the Wolga, in the middle of the Steppes, which separated Astracan from Oremburgo, he found thick down, which convinced him that he would not find it necessary to go much farther. He also remarked that they gave

question among the naturalists of Europe, what species of animal produced the material from which such precious stuffs were made. Travellers gave no satisfactory information upon this subject. The general opinion was, that cashmeres were produced from a goat, but the particular species was not determined. The importation which has just been made, clears up, in part, this difficulty, for these animals produce a down exactly like that of which the most rare shawls are made; I say in part, because it is not impossible that wool may be also employed for this purpose, or that different kinds of the goat may unite to bring the manufacture to perfection. I shall describe particularly those which I have seen upon their arrival at two of our Mediterranean ports.

Their usual height is about 25 inches from the ground to the top of the back, and the length from the beginning of the tail to the head, three feet. Almost all have horns, which are straight, black, and for the most part round; those of some males, as well as females, are thick, furry, white in the majority of individuals, some brown or black, several spotted. They are formed of long hairs, which cover the legs, in part, and a very soft down. The latter is fine in proportion as the hair is long; the quality of one may be known from the other. This down grows near the skin, from which it separates and forms tufts, which can be drawn away by a comb or by the hand. Except in the case of an absolute prohibition, it appears as if our manufacturers could have no interest in importing these downy cashmere goats into France, for the material may be procured in the way of commerce; it would be sufficient for them to imitate the stuff which bears this name. M. Ternaux, so well known by his beautiful establishments, was not of this opinion. He had received, by the way of Russia, down enough to make some shawls; his success gave him the idea of procuring the animal on whose body nature had placed this down. The undertaking was not an easy one. He found M. Jaubert, Master of requests, and Professor of the Turkish language, a

man of zeal and intelligence, who was not to be repulsed by obstacles, and who was much attached to this country. This gentleman had already travelled in the Levant, and could make himself understood among the different nations. He was willing to undertake the expedition.

In order to obtain the protection of government, M. Ternaux presented him to the Duke of Richelieu, then Minister of foreign affairs. This Minister, who acknowledged the utility of the project, made a contract with Ternaux and Jaubert, in the name of the king, by which Ternaux was to receive a premium of encouragement if the expedition succeeded. The government was to take a hundred goats at a high price. In consequence of this, Jaubert left Paris in the month of April, 1818, recommended by the Duke of Richelieu to the notice of the Emperor of Russia. This sovereign gave orders in his dominions that the French traveller should be furnished with all the facilities he needed. Jaubert went first to Odessa, Tangarock and Astracan, to the camp of General Jermoloff, under the Caucasus, taking every where information from the Boukars respecting the Kirghiz and the Armenians, who frequent and inhabit the last of the cities. He was informed that there existed among the numerous hordes of Kirghiz (a wandering people who came into Boukaria,) on the borders of Oueal, a species of goats which was almost always of a dazzling whiteness, and which bore every year, in the month of June, a remarkable fleece.—The samples shown him convinced him of the conformity of this down with that which came into France by the way of Russia.

The discovery was more interesting to him, as it saved his time and a troublesome journey in crossing into Thibet, by Persia and Cashmere. He was not deceived, and in some hundred versts from the Wolga, in the middle of the Steppes, which separated Astracan from Oremburgo, he found thick down, which convinced him that he would not find it necessary to go much farther. He also remarked that they gave

them the name of Thibet goats, in the language of the country, when they spoke of them. He then made his purchases, buying different lots among the Kirghiz, of the horde called Cara Agedi (the black tree,) among the Kirghiz of the horde called Kaiskas, in all 1229 beasts. He directed his troop towards Tzaritizin, where he passed the river Wolga. The season became severe, and the mortality among the goats was very great. He had formed a plan of embarking them at Tungarock, but the sea of Azoff was frozen. He was obliged to go along the coast with them to Theodosia or Cassa. He arrived there the 24th of December, after having lost 268 of his animals. The 14th of February he sent, in a Russian vessel, the only one he could procure, 566, together with some Austrian sheep, under the care of a French supercargo. The vessel arrived at Marseilles towards the month of April: Jaubert had preferred not to come until he could bring the second troop, which he did not choose to leave behind.

It results from the experiment of Jaubert and Ternaux, that from 1229 goats bought among the Kirghiz, deducting all the losses which have taken place, there are at present in France 400 downy goats of Cashmere.*

ON THE DANGER OF DESTROYING FRUIT TREES BY INJUDICIOUS GRAFTING.

THE following letter from John E. Howard, Esq. of East Bridgewater, was accidentally mislaid or it would have received an early insertion in our Journal. The facts stated by Mr. Howard are important, and the inferences drawn from these facts are correct and unquestionably sound. Nothing can be more pernicious, than too extensive pruning, or head-

* It is possible and even probable, that in the translation of the names from the native countries some errors may have crept in. Nothing is more uncertain than the spelling of proper nouns in foreign countries.

ing, down of trees. Some trees bear this unnatural privation of their limbs better than others. This seems to depend on their greater tendency to throw out suckers and small limbs, which speedily supply the place of the old. Generally speaking, the trees which most readily take from cuttings, which appear to have a greater share of the principle of vitality, will endure severe pruning better than those of slower growth. Thus for example—the poplar of all varieties, and the willow, may be fearlessly headed down to mere stumps, and their smallest twigs will take root. But if you should head down a walnut tree, it will nine times in ten die. So will the pines of all sorts. Among fruit trees, the apple is most impatient of the pruning saw. It is given to canker, and the whole tree is often destroyed by an attempt to graft all its limbs at once. In the year 1786, my father, then new in the art of horticulture, employed a common grafter of very little skill, to engraft some old apple trees which bore very indifferent fruit. He cut off every limb, and inserted scions in them all. Nearly one half of these trees perished in the course of ten years. Some died in two years. Others of greater vigour, sustained a miserable and sickly existence for a longer period. Five years since, two apple-trees, which overshadowed an ornamented hedge which I valued more than the fruit, were cut close into the trunk by my directions, they both died the following year, though they had sent out shoots to the length of eight or ten feet.

The pear tree will bear pruning much better than the apple, but I have seen severe pruning for grafting nearly fatal to this tree also. On the whole, there can be no doubt, that the top of a tree or plant is as necessary to its health as its roots—that although some trees will survive rash and sudden amputations at *one* time, as men will sometimes survive amputations of both thighs at once, yet nine times in ten the experiment will fail, and is at all times precarious.

J. LOWELL.

Roxbury, Nov. 1, 1823.

Vol. VIII.

West Bridgewater, November 7, 1823.

[John Lowell, Esq. Corresponding Sec'y. of Mass. Agricultural Society.]

SIR,

On the 28th April last, I employed a man in grafting a young orchard, situated on the margin of a river near my residence. The soil is of an excellent quality, and well adapted to the growth and sustentation of fruit trees; and the situation, in other respects, very eligible for the purpose to which it is applied.

Among the number of trees which were then grafted, was one (and there was not in the orchard, previous to this time, as was sufficiently indicated by the broad dark leaf, and the smooth, shining, and almost transparent bark, another in a more healthy and flourishing condition) having only two branches sufficiently large for grafting, and which, being severed from their parent trunk, left it entirely destitute of both leaf and limb: not even a twig or sucker were visible about it. Four handsome scions were inserted in the stocks, and the usual precautions taken to preserve them in their position, and secure them from violence.

After the operation of grafting had been completed, I continued, daily, to visit the orchard, watching, with minute attention, the progress of the sap as it made its way into the new inserted scions. My repeated visits enabled me to make, in course of the season, the following observations.

1st. That the scions set in the trees from which the tops were not entirely taken off in grafting, put forth much sooner, than those in the tree here particularly noticed.

2d. That these last did, at length, put forth, and look thrifty and promising.

3d. That they soon however began to take on a sickly hue, fell into a state of general decay, and before the commencement of the present month, I found both stock and scions entirely dead.

I have since carefully examined the tree below the surface of the ground, to ascertain whether its death was not occasioned by the attack of some destructive insect; but could find nothing to justify such conclusion. The bark still remains whole and entire, without the least appearance of any bruise or incision being made in it. To what then can its premature death be attributed? *to the taking off of the top in the manner, and circumstances, in which this was done in grafting?* If this be the case (and I have scarcely a remaining doubt on the subject) it is a fact certainly of importance; and one of which farmers generally ought to be apprized. I am, sir, very respectfully, your obt. servant.

JOHN E. HOWARD.



ADDRESS OF JONATHAN ROBERTS, Esq. PRESIDENT OF THE
PENNSYLVANIA AGRICULTURAL SOCIETY.

WE are induced to insert this address in our Journal from a great variety of considerations. We do it on account of its own intrinsic merits. It is plain, simple, perspicuous, in a style adapted to the class of citizens whom it was intended to instruct.

We insert it, because we think that the whole body of American farmers should consider, that their interest is a common one, and too much cannot be done to make known the usages, experience and skill of every part of our country. Besides, it is no disparagement to any other state to say, that when agriculture attracted the attention of the public, and claimed to hold its natural rank among our pursuits, Pennsylvania could fairly lay claim to the first rank among its sister states as an agricultural country. We ought to look to the excellent cultivators of that state for lessons founded on experience, which is the only sure guide in all the arts, and more especially in agriculture.

We would not be understood to express any distinct opinion in favour of any of Mr. Roberts's opinions. There are some, about which we have doubts, but it is proper that the sentiments of a man enjoying the confidence of a society, in a state, where agriculture is so advanced, should be known. The doubtful manner in which Mr. Roberts speaks of root cultivation will not meet the approbation of northern farmers. His remarks on the effects of gypsum or plaster of paris deserve our most serious notice. Pennsylvania has tried this manure longer and more extensively than any other state, and if its virtues are *there* called in question, if it has been found to impoverish the soil, and to require the application of lime to renew its fertilizing qualities, the fact ought not to be concealed.

His suggestion that herds grass, (or timothy as it is called in Pennsylvania) is injurious to the soil ought also to be stated in order that it may elicit inquiry.

His preference of the ox to the horse, for labour, coincides with our New-England notions, and must confirm our previous opinions. On the whole, we think his address will be read with interest and profit. EDITORS.

PRESIDENT ROBERTS'S ADDRESS.

"It is in vain to talk of producing much beyond what the market demands; that for which there is no sale, will hardly be cultivated; many of our products are in little demand, and hardly bear the expense of culture. Can this state of embarrassment be relieved? is a question, the solution of which claims the sober consideration of the wisest heads. Much has been done for commerce and manufactures; but when has the agriculture of the middle states shared any benefit from the national legislation? Yet we have grown to be one of the most considerable agricultural

nations in the world, and *this* portion is not behind in her productions. This great national interest was well content to see commerce cherished as a pursuit that then needed it, and as a most valuable mean of prosperity; commerce then winged our products to every market. To us, then, every market was open. In many markets, we are now forestalled, and this interest in her turn claims regard; it is time to harmonise and consolidate it; it will not seek the aid of bounties and premiums, but it has a right to the home market; it is in the power of the Congress to secure it without oppressing any other interest; the majority of the state and national representatives must ever be elected by those interested in the culture of the soil—their petitions must be secure of attention, and the legislative power, when it is proper, cannot be slow to interpose. Allow me to repeat that it is just, that those articles in which we abound, should be secured the home demand. An accidental rise in the price at home, or depression abroad, cannot make the importation of such articles, a wise policy; we have, and must continue to have, a full supply of grain. Why then offer facilities for its importation? Countries which, perhaps, at no time grow sufficient for their own consumption, have found it necessary to protect the farmer against sudden depressions by importation. So far as consumption is concerned, absolute prohibition would seem the better policy. Wheat and potatoes of foreign growth have sold in our markets at good profits, when the products of our own soil would hardly repay the expense of cultivation. On nothing do prohibitory duties seem so strongly called for, as on the article of *wool*. By one of those changes in the affairs of nations, which rarely occur, the fine woolled sheep of Spain became transferred to our country;—we all remember at how much expence and some of us, perhaps, have to regret it. Practical men at length, became engaged in the growing of fine wool. This interest was at first checked by the large importation of woollen goods, immediately after the late peace

with Great Britain. It had hardly began to revive, when extensive importations of wool paralyzed the hopes of the farmer, and now seriously threaten the annihilation of this precious race of animals. For some time wool, the growth of the country, has not been exchangeable for money; the keeping of merino flocks under the best management is almost a total loss; I speak from actual experience. Prompt and effectual legislative interference is required for the preservation of this interest. No exertion ought to be omitted to secure so important an object. An encouraging bounty has long been secured to the growers of sugar, an article, which perhaps we have no means of cultivating to the extent of the home demand, while wool, an article we can produce to any extent, pays less duty on importation by one half than sugar. The best interests of the country loudly call for increased duties on foreign woollen fabrics, and onerous ones, at least, on the importation of the raw material. In the year 1816, our most successful manufacturers of cotton despaired of producing goods at the India prices;—but in the short space of seven years, what astonishing facilities have been acquired in the cotton business, while the raw material is still at a good price? Our woollen manufacturers are fast following the success of our cottons, and the production of the raw material is little less important to the middle and eastern states, than the growing of cotton and sugar is to those of the south and west. It is not a high price, that is needed to encourage the growth of wool, but a market at which it may be exchanged for money.

Farmers are deeply interested in having the inspection laws so executed, as not to give a preference to the products of other states in our own markets, as well as those abroad. Time has been, when our superfine flour was preferred to that of the neighbouring states; lately, however, that of New York and Richmond, and perhaps Baltimore too, has been in better demand than that of Philadelphia inspection. This inconvenience has not arisen from the

want of good laws, but from a mistaken policy in executing them. It is especially the concern of the producers to keep the standard of inspection as high as that of our neighbours. A bad inspection may easily disparage our products, but it will be always found a difficult task to restore their credit. The raising a degraded inspection will be felt oppressive, and in the natural order of cause and effect, credit once lost cannot be regained until it may have been some time deserved. Almost every man knows the value of credit, both as it relates to men and things, though it may be often less real than fanciful.

The freedom enjoyed by our citizens in the choice of their occupations, forbids us at an early time, to look for large investments in the cultivation of the soil, for the mere object of profit. Centuries are perhaps to pass before our farms will be so expensively wrought, or so minutely divided, as in the best populated countries. Necessity only can press man so closely on man, and that necessity cannot early occur in so extended a territory. An exemption from the inconveniences of a dense population forms not the least valuable item in our rich inheritance. Too much *land*, however, brings inconvenience, as well as too little. Speaking practically, the size of a farm is best regulated by the consideration of what a proprietor can conveniently superintend personally. That description of persons called managers, are rarely to be met with amongst us. Most of those qualified to take charge of other people's business, prefer having it of their own. This fact is a gratifying proof of the freedom and happiness of our people.

The true point of excellence in practical husbandry, is as far as possible to make the farm fertilize itself. Not that it is bad economy to buy manure, but that the *production* of it is the *only* resource for the country at large. The collections from stables, and the streets of cities, are to be had in comparatively few places. In years past, the demand for produce at good prices, and favourable seasons,

gave to farmers a return for their capital and labour that cannot now be looked for. Unproductive seasons have been joined to dull markets for several years. Light crops make lean barn-yards, and impoverished fields follow as a consequence. There is, however, room for an improved economy in the production and collection of manure. Lately a beginning has been made to convert the whole corn plant into a nutritious fodder,* or most valuable addition to the savings of the barnyard. The advantages resulting from this method, it is to be feared, are too little appreciated. With less labour I have found it the best method of harvesting the crops; it is then cured with less liability to injury from autumnal rains. We may well doubt, whether we have learned the value of this magnificent plant; the crop in one of the most certain, and least exhausting to the soil, while it is one of the most productive, cheaply cultivated, and most useful:—by this crop our sward lands are best decomposed and mellowed. It forms an important item in the course of crops, that must constitute our best husbandry. It may be doubted, if the root cultivation would be held in such high estimation in Great Britain, if this plant could be matured there; here the root culture has been little resorted to as a mean for feeding stock; it is by no means certain, that the American farmer would find advantage in engaging deeply in this course of husbandry; crops of this kind can only be abundant on grounds heavily, and of course, expensively manured; they will generally require more labour than the corn crops; they are not easily secured from frosts in our severe winters, nor can they therefore be fed with perfect convenience. So far, however, as they can be used as food for cows giving milk, they form an excellent admixture with corn meal—but they fall much below the corn crops, in what they add to the savings of the barn-yard.

* This seems to have reference to the plan of cutting the corn early, as proposed by General Hull, and Mr. Prince. EDITORS.

The potato and the turnip are the only root crops I have had much experience in cultivating; I have found them both uncertain in their product, the former an expensive culture, and the latter of little value when abundant. Neither of them leave the soil in so good a state for a succeeding crop, as the corn plant.

In the course of twenty-five years experience, I have found summer fallowing a bad course of husbandry, even for a wheat crop, before the ravages of the insects made it so precarious a culture. By a course of corn, flax, oats or barley, wheat or rye, and clover, we have avoided fallows, and have been enabled to improve our soil.

Farmers can well recollect how beneficially gypsum or plaster of Paris was exhibited as a manure, and that in the course of eight or ten years after its general application, the clover afforded neither a wholesome summer pasture, nor winter fodder. Recourse was then had to the culture of the fibrous rooted grasses: an evident diminution of the ploughed crops followed. Of these grasses, timothy was found to be the most productive, but the most pernicious to the soil.* It was recommended by its kindly commixing with clover, but with these qualities, it is in very little estimation at present among experienced farmers. The orchard, ray and herd grasses, appear to be entitled to no preference over the native grasses of our country; they do not afford so rich a sward for the plough. The clover at present seems to have regained its original value. The cause of its deterioration or recovery, I pretend not to explain.

The use of gypsum for a while superseded the use of lime—during that period the soil became saddened and unproductive. A recurrence to its use promises the former results, an open and productive soil. The effect of lime on grass crops in this second trial, has been scarcely less visible and valuable than the effect of plaster when first applied. This precious mineral abounds throughout our coun-

* This fact, if it be one, is new to us.

try. It forms (limestone) an essential ingredient in restoring and improving the fertility of soils. Our farmers well understand this, and they now apply it to an extent and expense alike creditable to their enterprise and intelligence. But to realize its full benefit, it must be accompanied with moderate dressings from the barn-yard, at periods from seven to nine years. To keep grounds long in grass without plentiful top dressings will be found an unprofitable husbandry. I have experienced it to be advisable to plough the third or fourth year. The extent to be put under the plough, must be proportioned to the resources of the barn-yard or the manures obtainable. Ploughed crops will ever exhaust the soil, and the farmer should be prepared to retain or improve its fertility. Dressings from the barn door are never doubtful in their effects. Disappointment never results from their application. Casualties may mar the crop immediately following: but benefit is sure at last to be realized.

Farms have been made singularly profitable by the cultivation of grass, and their fertility greatly increased. In this middle region, however, grass farms are less likely to multiply than in the interior and remote settlements. Frumentitious crops must remain a leading object with farmers here. A good system of husbandry comprehends a varied cultivation, and the keeping of several kinds of stock. The farm is thus made more productive, less liable to accidental discouragements from unfavourable seasons and other causes, and a succession of employment is kept up through the year, with fewer occasions of pressure or relaxation.

We have been slow to substitute the labour of oxen for that of horses; but the value of the ox as a labouring animal, is becoming every day better understood. With us the habit of keeping large stocks of horses has become inveterate. The horse it is true is a burden-bearing, as well as a draught animal, which the ox is not. In small farms they cannot both be kept, and the horse is justly preferred. This reason will not hold in larger ones. It is not easy for those

who have not witnessed it to conceive how much more cheaply the ox can be kept than the horse. When the former becomes unfit for labour his value is but little diminished. It is not so with the latter; he becomes useless. It should be our care to breed only good horses, diminish their numbers, and substitute oxen for the draught drudgery of the farm. We are too little acquainted with the sagacity and docility of this animal, and how profitably he can be employed. Our prejudices are strong against him. He is considered the emblem of dulness and inactivity. But his degradation is a consequence of our ignorance, inattention and neglect. The ancient Egyptians chose him as an emblem of deity—what an homage to his usefulness! I inherit nothing from my father I value more than the preference he taught me to feel for the employment of the ox; nor can I hope to leave a better inheritance to my children. Experience has convinced me he will perform as much labour as the horse—in heavy plough draft he is greatly preferable. The exhibition of his performances here will give him that estimation he deserves. The driver and himself will not continue to be the object of the world's dread laugh. He will rank with the farmer as one of his most valuable animals.

In practical husbandry the expense of labour is a cardinal consideration. Since the year 1818, farmers have very sensibly felt that labour has been much dearer than produce. We cannot speedily look for their equalization; a mitigation of this effect may be sought in some degree by improved implements. Those who have used the drag-rake can attest its value in lessening the expense, and facilitating the gathering, of that important article, hay. The revolving rake of Pennock and Pierce, is a most valuable improvement of that useful machine. An ingenious application of animal labour in the cutting of grass, has been effected. Of its practical utility I cannot speak, not having seen the machine in operation. If it can be adapted to common

farm purposes, it would rank the inventor deservedly among the benefactors of his country. Nothing is more wanted than the application of animal labour in the cutting of grain. It is the business on the farm which requires the most expedition, and it is always the most expensive labour. Such an invention can be no easy task, or the ingenuity of our fellow citizens, would, ere this, have effected it. But we have no right to despair, where there is not a physical impossibility. A liberal premium might well be employed to obtain such an object. Manual operations are greatly accelerated by properly constructed utensils. How much has been gained by substituting the steel hay fork, instead of those formerly used. The scythe is improving from year to year, not so with the sickle—thirty years ago it was better than it is now. Of all the utensils on the farm, the plough and the harrow are of primary importance. It is not very obvious that either of them are susceptible of much further improvement. It is desirable to ascertain, and bring into use, in the variety of existing models, those that will perform the requisite operations with the least possible force. This is within the range of our objects. The influence of habit is so strong, that it is difficult to get inventions into use, even when their utility had been demonstrated. How many years elapsed after steam power was applied to propel boats, before it could be brought into general use. He who succeeded in this will be better remembered than the discoverer. The rake drawn by animal power, is yet comparatively in little use. In no way can this society effect more good, than in accumulating and demonstrating, by actual operation, the utility of inventions calculated to facilitate the labours of husbandry and rural employments.

Household industry comprehends an essential interest in rural economy. It is the department in which the influence of that sex, to whom we are bound by the strongest ties of love and gratitude, is most conspicuous—it is the link which connects them with our exhibitions—it is the scene where the thrift, the ingenuity, the taste and intelligence of wo

man, has full latitude of operation. How many comforts, how many enjoyments are accumulated? how many endearments are secured, by raising her to her proper elevation? A community will be formed, refined, and happy, in proportion as woman is secure of respect. Employment is ever the shield of innocence, and the nurse of virtue. In a farmer's house it is the best maxim, *to make what you can*, even when foreign commodities are most depressed. Who would not prefer having their spinner, their dyer, their clothier, for their neighbours, rather than in a foreign land? Independently of all interested considerations, we must delight to cultivate an interchange of kindnesses and mutual good offices. How much must life languish where they are wanted? Our young people, who do not inherit farms, may in these pursuits commence life as heads of families, and end it as cultivators of the soil. But there are seasons in which the farmer needs their assistance in his business. They will be found ever ready to lend it. Agriculture must languish where it cannot, at intervals, bring tradesmen to aid in its labours. It is not in relation to the comforts of families only, that household manufactures deserve high regard and consideration: they are of essential importance to national prosperity. The community whose time is the most carefully and usefully employed, will be the most flourishing. Where there is no household manufactures, much time will be consumed to little purpose, and much expense must accrue to purchase that which is not produced. The wealth sent abroad for foreign conveniences, as things now are, will slowly, perhaps not at all return. Thus the nation will become impoverished. National penury must militate against individual and domestic happiness. It is a point of sound policy, to nourish a taste for household manufactures—it is for the ladies to facilitate and effect their establishment. Teach them it is for their country's good, and they will do their duty. They will not be slow to learn, when their fathers, their husbands, their lovers, become their teachers.

HON. MR. WELLES ON GRASSES.

[To the Trustees of the Massachusetts Agricultural Society.]

IN the Agricultural Journal of January last I offered some observations on Grasses, and gave the result of an experiment shewing their loss by exsiccation or the process of drying, in the summer of 1822. This subject has been pursued during the past season, and still farther extended. The variation, in the comparison of the two years, is not, it is apprehended, greater, (except in one or two instances which will be explained) than will often occur from the nature of the soil, difference of season, closeness of vegetation, exposure to the sun, &c. &c. As far as a general principle may be established by experiment, it will, in some degree, go to fix the relative value of our natural grasses, as they prevail in our pastures, or of those artificial grasses which should be selected as fit objects of cultivation. In collecting these several species, I have found the natural grasses which generally prevail in this neighbourhood, so few in number, that a short and yet sufficient description of them could be most properly first given with advantage.

The earliest grass we have is the *Avena Spicata* (Linn.) or spiked oat grass. It is peculiarly indigenous to the United States, and grows, it is said, as far south as Georgia. This grass ripens so early that it mostly sheds its seed, and thus reproduces itself, and is widely propagated. For this reason, as well as from its short growth, it is undeserving of culture, yielding little to the scythe. But it is of great value for early feed in our natural pastures, in which it abounds. One hundred pounds cut on the 15th July last, gave fifty pounds of hay.

The next grass which we shall mention is the *Poa pratensis* (Linn.) with us falsely called Red top, a colour it never has. This, both in Europe and America, is the common and prevailing grass of the pastures. It grows in almost

every soil and situation, and is one of those materials which is used in Europe for the manufacture of bonnets. The colour of its top, or panicle, is of a yellowish brown. The number of florets in the spike vary from three to five. The seed is sometimes saved and sown; but these fine spired grasses have so minute a seed, that, either from exposure to dampness and fermentation, or some other causes, which it is difficult to prevent or discover, they too often fail of vegetating, by which great injury and disappointment occurs in the wished for crop. Though this grass is amongst those which lose the least in drying, yet, as it presents little to the scythe, it cannot be recommended for culture. It is excellent in our pastures, and comes in naturally as the artificial grasses go out of our mowing lots. Indeed it has a preference with our farmers generally, for horned cattle, over every other grass. One hundred pounds cut July 17, gave forty-six pounds. It was past flowering.

The notice of our prevailing natural grasses might here be closed, but as the grasses which we shall next describe appear in our pastures, as well as our cultivated grass land, and are mentioned by several writers in answer to the question proposed by the Society, as to "what natural grasses prevail in this part of the country," we shall give their description here.

The grass here called Rhode Island, is the *Agrostis alba* (Linnæus) the *Marsh Bent* grass of England, or the *Agrostis Stolinifera*, Schrader, German. That excellent botanist, Mr. Nuttall of Cambridge, to whom I exhibited a sample, pronounces it the famous Fiorin grass of Dr. Richardson and the Irish agriculturists, on the authority of Hooker, who describes "the panicle thereof as purple, and the branchlets patent." The colour, at first, of the branchlets is of a deep red, and they adhere closely to the spike, but as they flower they become patent and change to a lighter purple. This grass has six to eight branchlets, and flowers more fully than the *Poa pratensis* though often confounded therewith. It is

amongst those which lose least by evaporation, and would be a more favourable object of cultivation were it not liable to the same uncertainty as to its vegetating and producing a crop as the preceding grass, and, from probably a like cause. In Ireland it is said to suit a wet soil, and to produce over six tons to the acre. In this country it does not flourish in such soil, nor does it give a great crop, especially compared with the Herds-grass. Still the hay is very excellent, and perhaps not exceeded by any other for its intrinsic value in nutriment. One hundred pounds in early flower, cut July 17th gave forty pounds.

The grass, in the answer given to the Society called Cambridge, Dog and Garden grass, is the *Triticum repens*. Dr. Elliot calls it the "hurtful *blue* or *Dutch* grass." In England it is called couch, knot, or dog grass. Every joint of its root produces a new plant, and it is said to be there, as it is found here, one of the worst weeds, and most difficult to extirpate. It resembles wheat, of which it is a species. The best mode to destroy it is to keep the lands longer under the plough, with a frequent use of the hoe, as where this is not done, two years ploughing only not merely multiplies, but occasions it to engross the whole soil. It has a hard woody fibre and is disliked by cattle. It flourishes mostly near cowyards, and gardens, and is called Cambridge from its abounding on the salt banks of the Charles river. One hundred pounds cut July 22d, in late flower, gave forty-eight pounds.

The grasses above described are those which prevail in our uplands, and are indigenous here. They are, probably, most of them what Doctor Elliot, in his *Field Husbandry*, denominates English Spear grass, and speaks of as natural to the soil and more hardy. The term *English* has been applied to our upland hay ever since the settlement of the country. These, with the red and white clover, and the varieties which nature, in a course of culture, or otherwise, produces, are what give verdure and fertility to the face of the earth.

Of the cultivated grasses, the first in importance is the Herds or Timothy grass, *phleum pratense* (Linnæus). Doctor Elliot says "it is a native and early discovered in this country by a man of the name of Heard in Piscataqua." It is doubtless admirably suited to our soil and climate, and not only flourishes in uplands, but may be sowed to advantage in low grounds, especially when drained or raised with gravel or loam. It often attains in height five feet and has been known to produce over four tons to the acre. It does not yield much till the second and third years. For which reason it is sown with clover, which being biennial and of shorter duration gives it space to succeed. In this vicinity such is the preference given to it, that it sells at about one fourth more than any other hay. It lasts with one or two top dressings six to seven years. The answers to the enquiries of the Society as to the quantity of seed sown, are two to six quarts. There should not be less seed than half a bushel to an acre, which later experience establishes most decidedly. One hundred pounds cut July last gave thirty-nine.

Red clover (*trifolium pratense*) is a most valuable grass, when cut green, it affords an excellent nourishment for cattle in the soiling process, as well as for swine. When made into hay, cattle are exceedingly fond of it. The flower and leaves are apt to separate from the stem, for which reason great care should be taken that it is not made brittle by too much exposure to the sun. It is best cured as far as may be in cock, and should be carted after the dew begins to fall. When properly dried, salt is used advantageously, as it may be housed with safety, more green than any other hay. This prevents fermentation and heating, and it is kept in better order. Many in this vicinity not only salt their clover, but all other hay. Lord Somerville observes that "he uses half a bushel of salt to a ton, and its benefit surpasses all belief producing the best possible effect in colour, flavour, and general result;" with damaged hay, he says "it is a great restorative."

The benefit of salt in the culture of the soil being now so generally acknowledged and the use of it so necessary for cattle in the interior or remote from the sea coast, it is difficult to assign a reason why its use is not more prevalent. To land highly manured two to four pounds of seed in this neighbourhood is used. But in the interior some apply eight pounds and many more. One hundred pounds cut July 6th, gave twenty-five pounds.

The white clover (*trifolium repens*,) is an abiding grass, sending out roots from every joint and forming a close mat on the ground and is very excellent for pastures. But it is found to afford so little to the scythe as to discourage the culture thereof. One hundred pounds cut June 26th gave twenty-seven pounds.

Of the grasses which grow in our meadows two only have been tried. The fowl meadow which Doctor Elliot supposed to have been brought to Dedham by birds said to be the *poa nemoralis* or marsh meadow grass of England.

It is an excellent grass, and deserving of culture. It is believed however to have extended itself more by its shedding its seed early than by any artificial means. One hundred pounds cut July 23, gave fifty-three pounds.

The common grasses of our wet meadows it is believed, are various kinds of *carex*. This in all its varieties is a poor grass, and where the land can be ditched and made to produce a better growth, the means should be taken. It is a bad economy to flood lands with mere water for a long time to increase a nearly worthless burthen. The effect is to destroy all sweet nutritive tender plants. One hundred pounds cut 23d July, gave forty-four pounds.

The "Marine Fox Tail grass," which is the prevailing grass of our salt marshes we receive from nature without knowing how to aid in its increase. One hundred pounds cut July 18th, gave sixty pounds.

The Black grass (*Juncus Bulbosus*) grows principally where the water is freshened by streams from the uplands.

It is the most valuable salt grass we have and but little inferior to upland grass, we know no means of artificial increase. One hundred pounds, cut July 18th, gave thirty-eight pounds.

We have too far trespassed on the time of the readers to do more than allude to some of those grasses which have been introduced and proved unsuitable for our culture.

The Wild Oat grass (*Avena Elatior*) with the Rye Ray or Durnel grass with which it is said confounded, are often seen in our pastures and meadows, but animals seldom touch them. They have a strong woody fibre and afford little nutriment though well spoken of south of us as well as in Europe.

The Burnet scarcely shews itself for a year and then disappears.

The Succory has been praised by Mr. Arthur Young, that distinguished agriculturist who sent it to General Washington. It has been introduced here, is disliked by cattle, and has become one of the most troublesome intruders in our fields. These with the St. Foin and Lucerne and many others have passed away and seem to have ceased with us to excite expectation. Of the Orchard grass or cocks foot (*Dactylis Glomerata*) the trials I have witnessed do not enable me to speak so decisively as one of the trustees, Mr. Prince does, who approves of it. It may be considered as in a course of experiment.

My desire, Sir, in the preceding, has been to aid in exciting an attention to the best means of culture for our grass lands. The process of sowing grass seeds was far from universal within the recollection of many in this country and is lamentably insufficient now. Its neglect has been complained of even in Europe. It has been contended that nature would furnish according to her own capacity the power of increase in this particular. Thus the soil was to be furnished with the means of promoting vegetation by *labour* and *art*. But here these were to stop and the stimulating prin-

ciples were to evaporate and be wasted and one or two good crops lost in waiting for this slow process.

But the blindness of this doctrine is vanishing before the light and improvement of the present age. We learn from experience that the earth presents to industry and skill her ceaseless efforts, and never pauses but from our neglect.

Table showing the loss of weight in drying grasses.

	1822.	1823.
100 pounds of Green white Clover,* gave—	17½	27
100 pounds of Red† Clover, gave	27½	25
100 pounds of Herd's Grass, gave	40	39
100 pounds of Fresh Meadow, gave	38	44
100 pounds of Salt Grass,‡ gave	39	60
100 pounds of 2d. crop or English Rowan, gave	18¾	19
100 pounds of Corn Stalks, gave	25	25
100 pounds of Spiked Oat Grass, gave		50
100 pounds of Red Top, gave		46
100 pounds of Rhode Island, gave		40
100 pounds of Couch Grass, gave		48
100 pounds of Marine Black Grass, gave		38

I am, gentlemen, with high respect, yours

J. WELLES.

* The White Clover of 1822, was taken in the shade. That of 1823, from a light warm soil exposed to the sun.

† The Red Clover in 1823, was taken in the first year of its product, in close growth and for that reason falls short of 1822.

‡ The Salt Grass of 1822, was I have reason to suppose a second growth which accounts for the difference of the two years.

If enabled, experiments will in these cases be hereafter given, so as to fix the result with sufficient accuracy.

ON THE MANAGEMENT OF FRUIT TREES.

As this is the branch of Agriculture least understood in our country, it has seemed to me, that no number of our Jour-

nal should be issued without some hints on that subject. No sensible man would pretend to place it in competition in point of importance, with either the general cultivation of the soil, or the raising of domestic animals of improved breeds. The first object undoubtedly is, to produce the greatest quantity, and the best quality of articles of food for the support of the inferior animals, and of man. The second to improve the races of domestic animals which furnish us food and clothing. But when these have been brought to perfection, and indeed while we are endeavouring to bring them to that state, we ought not to neglect those luxuries which our own country is capable of producing, and which contribute essentially to our enjoyments. So long as we pay some millions of dollars for exotick fruits and productions, for foreign wines, oranges, figs, almonds, raisins, and olives, we ought not to neglect fruits which our own climate will produce and which are invariably preferred to those which we import. I hesitate not to say, that in any dessert on the most sumptuous tables, native apples and pears if of exquisite qualities, are always taken and consumed in preference to the finest exotick fruits. So long as we can place on our tables delicious native grapes, peaches, apricots, nectarines, strawberries, raspberries, apples and pears, the exotick fruits will be only used as ornaments to give splendor to the dessert.

With these views we think it our duty to encourage our own horticulture, and to lay before our readers the remarks of foreign cultivators of greater experience.

The article herein inserted was extracted from a work of Mr. Hayward, and which met the approbation of the Horticultural Society of London. It is one of the latest works on this subject, and is certainly entitled to high respect.

We would simply remark that to those who read it carelessly it may seem to militate with the opinion expressed above in noticing the Communication of Mr. Howard, of Bridge-water, as to the policy of *heading* down trees—but on fur-

ther examination it will be seen to be in entire accordance with it.

The reason why injudicious and extravagant pruning of trees is injurious is, that the roots remain uninjured and calculated for the tree in its full vigour. They will therefore send up a superabundance of sap, which finding no limbs or leaves to receive them overflows, and descends down the bark, is there decomposed, and forms a black mass which we denominate "canker."

But when trees are transplanted, the reverse of this takes place—the roots are exceedingly diminished, and are not sufficient to supply the requisite nourishment to the plant. It is almost incalculable, the quantity and number of minute fibrous roots, which are destroyed in all transplantations.

Hence there is no sort of discordance in these opinions, as to the *propriety* and *necessity* of heading down, or severe pruning in cases of transplantation, and the *danger* of doing it, when the roots *remain entire*. One thought may be suggested, and we believe it to be new, resulting from this discussion, which is, that when you prune or graft a large tree or cut off its principal limbs, it may be useful to diminish its *roots* in nearly the *same proportion*. I am induced to mention this, because the Green and Hot House Gardeners are in the constant practice of diminishing the roots, when they *head* down their plants.

COMMENTS ON THE GENERAL MODE OF RAISING AND MAN-
AGING FRUIT TREES OF THE NURSERYMEN.

IN the removal or transplantation of trees, gardeners and nurserymen are generally very careless and inattentive in taking them up, and care not how much the roots are broken or lessened in number, provided they have enough left to keep the tree alive; the consequence is, that although the branches left on may remain alive, there is so great a deficiency of sap, from the loss of roots, that the vessels can-

not be filled the following spring, therefore they contract and become inflexible, and after one or two seasons are incapable of extension; so that when in the course of time the roots are restored, and the sap supplied in the usual quantity, it is, from being restricted in its former course, impelled through the nearest vertical and accommodating buds that offer.

Hence it will be seen, that in almost all trees trained in the common way, the first branches which were trained in, and are the most horizontal, are the smallest and weakest, and in consequence incapable of bringing fruit to perfection; and as these occupy the best part of the wall, the strongest and most luxuriant shoots, by being trained erect, quickly grow out of bounds, and are annually cut away.

Thus the strength of the tree is wasted, and the continued efforts of nature to produce fruit, in proportion to the age and capacity of the roots, is obstructed, instead of being forwarded and assisted.

It is this effect that induced the practice of heading back young trees, on transplanting; and under such circumstances it is certainly a proper and necessary method.

Trees that are not headed back, after the usual mode of transplantation, such, for instance, as half trained and full trained trees from the nurserymen, are found to throw out their strongest shoots immediately about the stem or trunk, and notwithstanding these are removed, this and every other attempt to force the sap into the old branches is vain, its nature will remain the same; and a vigorous head cannot be restored, but by a removal of the old branches.

This shews the impropriety of the present practice of heading back and training trees in the nursery ground.

As it is a general custom for those who plant fruit trees to rely on the nurseryman for the production of their plants, it becomes an object of the greatest importance to enquire, how far their general practice is adapted to public utility. And I feel no hesitation in stating, that this business is con-

ducted upon such imperfect principles, that it is almost impossible to find one plant in twenty that is worth transplanting.

It is obvious, that unless the original plan or foundation be good, a perfect superstructure cannot be raised.

From the deformity and disorder produced in the nursery ground, almost all our gardens and orchards exhibit in their trees a complete contrast to the beautiful simplicity and bountiful produce provided for by Nature.

Before, therefore, any thing like perfection can be attained by the gardener, a reformation must take place in the practice of the nurserymen.

The first operations of the nurseryman I will consider to be the transplanting his stocks for engrafting and budding, and in performing this, his only object is, that they grow and produce some kindly luxuriant branches; but as to how or where, or in what manner, either these or the roots may grow, he is perfectly indifferent.

Whether the bud or graft produces one or more shoots it matters not, the whole are cut off short, or, as it is termed, headed back the following winter, and such as accidentally produce four or five branches, so placed as to be fastened, to form a flat side, are fixed to stakes or a wall, in the form they are usually trained; and as if further to insure premature old age, decrepitude, and deformity, they are afterwards several times taken up and transplanted in the same careless manner.

The roots are broken or cut off at random, and generally either diminished more than one-half, or they are doubled back and distorted, and if there be enough left to keep the plant alive, it is thought quite sufficient; and by these means the appearance of blossoms and fruit being prematurely produced, those stunted and deformed plants are sold as half, or full-trained trees for four times the price of others; and when sold, they are again taken up, and the roots treated and diminished in the same careless manner.

Miller, Forsyth, Knight, and others, uniformly direct that trees from the nursery ground be cut down, or headed back, to two or three eyes, the next spring after planting; and with such plants as are here described, there cannot be a better mode of treatment, but this is evidently losing time, and wasting its produce.

Whenever the roots of a tree are diminished on transplantation, the supply of sap must be proportionally lessened; for if the branches of a tree, under such circumstances, are left at full length, the sap vessels, for want of a due quantity to distend them, become bark-bound and inflexible; and when the roots are restored, and furnish a luxuriant quantity of sap, this, from being obstructed in its former channels, forms new ones through the buds that offer the most perpendicular position, next the stem or trunk; and although these shoots may be rubbed off, still they form again in the same place, and it will be in vain to attempt supporting the original branches.

A regular head cannot be formed, but by a removal of the entire old one; and frequently the vessels of the trunk itself become so fixed and stubborn in the bark, and particularly in standards, as to force the sap out into luxuriant branches near the root.

It has often been made a question, and a subject for argument, whether it is better to transplant from a rich to a poor soil, or the reverse; but as the transplanting from a rich to a poor soil, even were the roots entire, must cause the bark or sap-vessels to contract, for want of the usual supply of food, and be productive of the same consequences as curtailing the root, the doubt is easily solved.

It may further be remarked, that however diminutive a plant may be from poverty, provided the vessels have always been free from contraction, they will readily expand through all the usual channels, and receive and regularly dispose of every additional supply of sap, however great it may be.

MR. SEDGWICK'S ADDRESS.

WE have just received the address of Theodore Sedgwick, Esq. of the city of Albany, son of the late Hon. Judge Sedgwick, before the Berkshire Agricultural Society, that nurse of Agricultural Spirit in Massachusetts, whose exertions we have been always ready to applaud. We need not say any thing of Mr. Sedgwick's address, of its spirit and energy, of its sound sense, and of its caustic satire. It must speak for *itself*, and *will* speak very eloquently. It does him and his country honour. It would be read with interest in any country. Our Journal was so full before it reached us that we have room only for the following persuasive and powerful argument in favour of an educated, or reading farming population. We ought not to despair of making our farmers theoretical as well as practical men. We do not believe, that knowledge impairs the capacity for labour, but are firmly convinced that it directs that labour to the most profitable means and results, and we are sure that such application of their powers will make them better citizens of a free state. EDITORS.

 ADDRESS.

WHAT a miserable creature is a man, without pride and knowledge? Those who are agricultural must know, how best to cultivate corn, wheat, potatoes, onions, parsnips, carrots; they must know that the root of a cabbage may be found six feet from the stalk, for then they will know, where the spade and the plough are wanted. They must read the English Farmer's Calendar, the New-England Farmer, and the Massachusetts Agricultural Repository, or other as useful books, they must then put this and that together, and with the aid of their own observation, endeavour to find out the way, to make their lands crumble before the plough, or

in agricultural phrase, putrid with fatness. For this purpose, they must have the books, or some of the best of them ; there is no better investment of money. Knowledge is a capital, that does not waste, neither moth nor rust corrupts it ; it brightens in the using. A man who cannot read, is a poor creature ; he has neither hands, nor eyes, nor ears, that are of any use ; and a man, who can and does not, has but half the use of them. The knowing men are the prosperous men in every community, and that should decide the question with the people, as to the expediency, of pushing knowledge to every possible extent. But knowledge has its price, and must be paid for. If we are to be a great nation, renowned for order, frugality and industry, so that strangers shall inquire, whence comes the extraordinary prosperity of these people, what institutions have they not heretofore known to mankind, whence these discoveries for human happiness, and what are they, we must now in our youth, establish those principles and practices, which are to lead to these results. For this purpose, we must cultivate such a taste among our people, that they shall prefer an agricultural show, to a show of wild beasts ; and when they come to these assemblies, it shall be, to take pride and pleasure in the patriotic men who stand foremost in the exhibition of fine sheep, and horses and cattle, and to carry home some useful knowledge for their own towns and villages. For this purpose, we must so educate our people, as that every man shall have a just sense of his own value and importance as a citizen, with a good coat for a holiday and a Sunday, so that he shall consider it a dishonour to be ignorant, a disgrace to be a pauper, but by the infliction of providence, and an indelible infamy to be a common drunkard. There is no mystery in the causes of the superior respectability of any people. My mature life has been spent in a sister State, I am therefore less exposed to the imputation of local vanity, in stating to you, what I know, that this our native state, is not less respect-

ed than any other, (may I not say with truth more ?) for all those admirable institutions, which constitute the glory of a people. But the matter is plain and simple, your people are proud; proud of their clean shirts, and good coats, of their roads, their schools, their colleges and their agricultural fairs—instead of envying the wealth and greatness of their capital, they are proud of that too, and with reason, where a hundred and fifty boys in a *free* school, rich and poor, are pushed on to the highest attainments in all the practical science of life—such as will fit them for business, for real business, for work, for labour. Let us not deceive ourselves by supposing that our systems of education are perfect, while so much yet remains, that is quite practicable. The education that the great mass want, is a knowledge of the arts of life, and I should think, that any man who should prepare a plain and practical treatise upon agriculture and the arts immediately connected with it, for the use of common Schools, would render an invaluable service to the public. Who knows any thing of schools, that does not know, that the time of an intelligent boy, is in a great measure wasted, who spends it upon his arithmetic, his writing copies, his spelling book, his reader's assistant, and his Dwight's geography (for this is about all) for the long period, from three and four years of age, to twelve and fourteen, when he leaves the school? Why should not an agricultural school book be written, as well as books in many other branches of knowledge? All that we can communicate by teaching in any science, is that which is now known, and as much is now rendered certain, in that department of knowledge, as in many others. No, fellow-citizens, we must raise the standard of knowledge and taste, and not remain ignorant, that our agriculture is in almost an infant state, compared with that of many other nations; we deceive ourselves by supposing, that their superiority consists wholly in capital, and the cheapness of labour. Not so, it really does not require capital to put to the plough, half the lands, that

are now in tillage—nor to know, that between one plough and another, there is a difference of between two and six hundred per cent, as to economy of labour; nor for the purpose of adopting, substantially, the admirable contrivances, English and Flemish, for the saving of manure, a saving which would pay all our taxes, state, county, and town. Nor to know, that lands in tillage should be reduced by the plough and the harrow like our gardens by the spade, to a powder, so that many a fine little creeping fibre of the plant, may travel on in company upon the same soft easy road, and when they are tired of the journey, may rest together upon a good bed. It does not require capital to plough a field four and five time instead of twice, 'till there is not a cold, matted, impervious clod left, it is the *work*, the *work*, that is wanted, and not the *afternoon* farmer. It is not capital that in twenty years, has doubled the value of the produce of the fields of this country, which I know to be the opinion of many an intelligent farmer: Nor is it capital, but knowledge, that is necessary, for any man to find out the best possible way of doing in the best and cheapest manner, the thing to be done. It is not your ignorant people that perform any thing, even the most common operation of farming, in the best manner. Their way has always the least contrivance and management in it, takes the longest time, is the coarsest, most slovenly, and wasteful. These ignorant people, are a nuisance upon a place, and no one can tell the distress of mind, that they give to your nice, careful, keen-looking, pains-taking folks. The small fund granted by your legislature in aid of the agricultural societies, really does not impoverish the State, and I trust that the good people, and the *poor* people of this fine State, will not disgrace themselves through envy and littleness of mind by abrogating this law, I say the *poor* people, it is a law for them, it is *their* law. It puts more upon a level in a country like ours, the man who has fifty acres, and him who has two hundred and fifty—your two hundred and fifty acre

farmers, sleep a little longer, eat a little longer and more daintily; they wear finer clothes, and then the children must, as things go now, wear finer clothes than their parents. So that before the end of the race, skill, industry, and perseverance, bring matters pretty much to an equality. We talk of the want of capital, and turn with disgust or incredulity, from the accounts of English farming, as though because they live on an island, are surrounded with damps, have landlords and tenants, and not our fine Sun, cultivate turnips and cabbages, that therefore, we have nothing to do with their agricultural arts. But do they not as we, live upon veal and mutton, beef and pork? Have they not meadow lands and grass lands? Do they not with us, cultivate beans, peas, oats, rye and wheat, and if so, are not their arts worth knowing by us? And does this require capital? It would to be sure, require some money to build a pit for the saving of manure, with brick work in terras mortar, after the manner in Flanders, but it would not take the odds and ends of more than a dozen days, for any common farmer to dig a pit in his yard, to be well clayed at the bottom, and covered at top, so as to be a receptacle, with the aid of proper conductors from his stables, for all that passes from his animals. The making of manure by raking and scraping, and every possible contrivance should be the first law to the farmer. We justify ourselves in our slovenliness and low ideas, by complaining of a want of capital. No, let us not mince the matter, one to another, it is knowledge, pride and neatness, that we want. It really does not require a capital in money to raise a fine cow or horse, always sleek, fat, clean, that shall pass its days rejoicing in life, with gratitude to its master (for we may desire to believe that the poor brute has some such thoughts) no, the half that is wasted, will do that, and then the animal is of double the value. But it does require a stock of shiftlessness, laziness, and hard-heartedness, to bring up a herd of miserable, wretched, half starved, dirty, downcast,

mourning cattle, that seem to deplore their very existence, and are at all times, more fit as food for the wild birds and beasts, than for the use of man. The subject of fruit, is of great importance to a district of country like this, where some of the finest, as the apple, plumb, pear and cherry, will flourish as well as in any other. What is fruit, but one of the first and best gifts of God to man, and where is there a finer sun for ripening some of the most delicious, than we have, for three months in the year? 'This is a real luxury and refinement, to which every man, who has an acre of land should accustom himself. What cheaper luxury with which to load the hospitable table? Men will have luxuries, and if so, they must pay for them. We go to the Indies, to get the materials of a pudding, when our gardens and fields might furnish us with a much richer and healthier repast. It is the *economy* of fine fruit, that we want. Set a child down to a dish of fine peaches and cream (for the peach may be produced in perfection among us, though it will not live for ever, and what tree will?) or of fine gages, or if you please the horse plumb, as we call it, and he will soon show you what is good, for *he knows*—he will pass by the pudding. Then there is another advantage of the fine fruits, of all the productions of nature, they are the healthiest. If they were common, dysenteries and colics would be less so, and we should be saved from many a doctor's bill, which no body can read or spell, but which every body must pay. In health lies much of the glory and happiness of a man, and can it be supposed, that the Supreme Being does not require from his creature, the greatest possible attention to it, when it gives him a glistening eye, a strong arm, and a body fit for labour. There is another advantage still, in cultivating the fine fruits. It teaches a man something; it teaches him to perform a nice operation, and do it well. It teaches him a lesson of eternal vigilance and industry, and to be up and stirring, when he would otherwise be yawning and sleeping. Then again, if he will know how

to inoculate and engraft, and generally the nature of all the fruits, he must *read*. It is reading and education in those matters that appertain to the arts of life, that our labouring people want. I mean if they will know how to perform these operations, in the best manner. They must read what Mr. Knight has written, or Forsyth, or the American Orchardist, or Cobbett, or something or another, and not pursue the trade of engrafting, as I have known it done in this country. That is, cutting off the whole head of a tree, and filling it with grafts, which exposes it to almost certain death—placing winter fruit upon summer, or the reverse, without a single enquiry, as to the nature of the stock; putting twenty grafts upon one tree, beginning at the bottom and going up with a tier, one upon another, thinking I suppose, that a tree like a horse may carry double. Rely upon it, that if you teach a boy to labour and to read, though it would be contemptible to suppose, that *reading* will enable him to plough, *as by a line*; if the operations have been going on together, if he be not a miserable imbecile, he is the more of a man for it, and in the end, will show you better cows and horses, potatoes, carrots, and wheat, and *more of them*. No, we want the fruits; in our orchards the Pippin, the Spitzenburgh, the Rhode-Island Greening, the Swaar, and other fine apples, and not so much of the miserable trash, which the pigs will turn from. In our gardens, fine cherries, peaches, pears, and plumbs. For all this, we must have the nurseries, and not be compelled to send to Mr. Prince on Long Island, or to Lansingburgh, or to Athens, for our trees, *for we can't afford that*. These would make a fine addition to the agriculture of our country, not much less celebrated, if I am not mistaken, than any other district of country, (unless in the immediate vicinity of the great towns) in any state whatever."

AGRICULTURAL INTELLIGENCE.

WE are very happy to see, that Agricultural Societies not only continue to multiply, but that generally speaking, they seem to be constantly improving in their shows of cattle and of domestic manufactures. It gives us sensible pleasure to perceive that the addresses, are every year improving in their business-like character. That while they evince on the part of the writers, cultivation of mind and research, they serve to communicate very useful information, and what is more, a taste for reading among the class of society in which this sort of information was not abundant, thirty years since. Farmers have a great share of leisure for reading. It can scarcely be hoped however, that any but the most opulent and intelligent among them will purchase an Agricultural library. Yet almost all could afford to pay five dollars to enroll themselves in the Massachusetts Agricultural Society, which will entitle them to receive for life the Journals of this Society, which are published twice a year. Thus for a payment equal to one dollar per annum for five years, they become entitled to receive a work devoted to their own pursuits during their lives. Who is so poor as not to be able to afford this? Who so indifferent to the honour, and dignity of his own profession as not to be willing to pay one dollar a year for so short a period as five years, to secure to himself and his children such a mass of Agricultural facts?

Grant, if you please, and it ought to be and is granted, that there are many errors, many unfounded theories, many extravagant statements of new experiments. Yet does this destroy the motives for reading and thinking on such subjects? We think not—an erroneous an absurd theory is tried and found to be so, and proved by a sounder man to be absurd, but it elicits or produces investigation, and often a sound theory and sound practice. The only terms of admission to the Massachusetts Agricultural Society, are a

recommendation from some one person of known good character that the person applying is an upright intelligent farmer—and the payment of five dollars to the support of the Journal, for which five times the value is returned, if the member lives to a reasonable age.

WE rejoice to find by a late able address of the Agricultural Society of Maine, that they are rekindling their zeal, and are fully sensible of the importance of the stimulus and direction to Agricultural effort afforded by public societies. It is impossible that Massachusetts should ever be indifferent to the success of Maine. If the ties of consanguinity, of long political connection could be forgotten—entirely forgotten: Yet there would still remain the great and almost unchangeable natural ties of mutual interest. Massachusetts from various causes must be for a century probably, one of the best customers of Maine—The prosperity of Maine must be highly important to Massachusetts.

We are pleased to see that they have kept pace with us in the importation of new fruits, and that the valuable varieties of pears sent by Mr. Knight, to the Massachusetts Agricultural Society have been at the same moment imported from another source into Maine. May we always thus proceed hand in hand in the advancement of all the arts which contribute to the wealth or the enjoyment of our respective States.

WE are now reluctantly obliged to recur to a *less* agreeable subject. We should have been much pleased not to have been compelled to renew the discussion. In August last, the Editors of this work received a "*post paid*" letter from Berkshire, addressed to John Lowell, one of the Editors with a *claim as of right*, that it should be inserted in this Journal.

Although we disclaim and deny any such right, it being contrary to the usual conduct of such works, and on grounds

perfectly defensible, because if periodical works devoted to any science or art were considered like newspapers, public property, and that men differing from each other, or from the editors could *fairly* demand an insertion of their controversial writings, there would be an end at once to their usefulness, yet as we know from the hand writing of the author, and other unquestionable internal evidence, that the writer is a distinguished citizen, we feel obliged to notice his remarks. He complains of our having intimated that the *thought of Agricultural Shows* did not originate with the enlightened gentlemen of Berkshire, though we admitted that the Berkshire Society had the unquestioned honour of introducing them here.—The eloquent writer, asks Mr. Lowell *by name*, “In what country have you discovered religious ceremonies intermixed with striking effect in agricultural exhibitions? Where have you seen a *committee* of respectable farmers ranging over the entire surface of a country *gratuitously* to inspect and decide on the merits not only of Farms, but of crops offered in competition for premiums? Where have you seen executive committees to whom is delegated the power to settle on premiums and execute the leading measures of agricultural societies for an entire year? Where have you seen the heart cheering *scene* of prayers and thanksgivings? Where have you seen singing of *appropriate odes* by public choirs of *male and female* singers? The delivery of premiums preceded by an address with certificates of honourable testimony to successful competitors *Ladies and Gentlemen*? In fine, where have you seen *splendid Agricultural processions* terminating with *pastoral balls*?” As the letter requested to be published is addressed to one of the editors, and he is called upon to reply, he does it *freely*. In France and England, before any cattle show was dreamt of in America, he personally saw, and read the proceedings of English and French shows at Smithfield, Bath, Lewes, Caen and Paris, exceeding in splendour any of ours *at present*.—The French excel us on such occasions in speeches, and dancing,

but we believe, that we are the only people who have attempted to combine religion with these public festivals, yet we would cling to the usages of our ancestors in this respect, as zealously as any.

CATTLE SHOW, EXHIBITION OF MANUFACTURES, PLOUGHING MATCH, AND PUBLIC SALE OF ANIMALS AND MANUFACTURES, AT BRIGHTON, MASSACHUSETTS, ON WEDNESDAY AND THURSDAY, THE 20th AND 21st OF OCTOBER, 1824. TO COMMENCE AT NINE O'CLOCK A.M. ON EACH DAY.

THE Trustees of the Massachusetts Society for the Promotion of Agriculture, encouraged by the patronage of the Legislature of this State, intend to offer in Premiums, not only the sum granted by the Government for that purpose, but also the whole amount of the income of their own funds. They, therefore, announce to the public, their wish to have a Cattle Show, and Exhibition of Manufactures, &c. &c. at *Brighton*, on *Wednesday* and *Thursday*, the 20th and 21st of *October*, 1824; and they offer the following Premiums:

FOR STOCK.

For the Best Bull, raised in Massachusetts, above one year old,	\$30
For the next best do. do.	20
For the next best do. do.	10
For the best Bull Calf, from 5 to 12 months old,	15
For the next best do. do.	10
For the next best do. do.	5
For the best Cow, not less than three years old,	30
For the next best do. do.	20
For the next best do. do.	15
For the best Heifer, (having had a calf,)	15
For the next best, do. do.	10
For the best Heifer (not having had a calf,)	12

For the next best do. do.	\$10
For the next best do. do.	8
For the next best do. do.	6
For the best Ox, fitted for slaughter, regard to be had to, and a particular statement to be given, of the mode and expense of fattening,	25
For the next best do. do.	20
For the next best do. do.	10
For the best pair of Working Oxen,	25
For the next best do. do.	20
For the next best do. do.	15
For the next best do. do.	12
For the next best do. do.	8
For the best Merino Ram,	15
For the next best do.	10
For the best Merino Ewes, not less than five in number, do.	20
For the next best do. do. do.	10
For the best Boar, not exceeding two years old,	12
For the next best do. do.	8
For the next best do. do.	5
For the best Sow,	12
For the next best do.	8
For the next best do.	5
For the best Pigs, not less than two in number, nor less than four months old, nor more than eight,	10
For the next best do. do.	5

None of the above animals will be entitled to premiums, unless they are *wholly bred* in the State of Massachusetts.

Any of the above Stock, when raised and still owned at the time of the exhibition, by the person who raised them, will entitle the claimant to an allowance of ten per cent. in addition. But sheep, to be entitled to any of the above premiums, must be raised by the person entering them.

For the best Ram which shall be imported into this State, after this advertisement, and before the 20th day of Oc-

- tober next, of the improved Leicester breed of long
woolled sheep, \$75
or a gold medal of that value, at the option of the
importer.
- For the next best do. do. \$50
- For the best Ewe, of the same breed, imported under
the same terms, and for the like superior qualities, 60
- For the next best do. do. 40

The persons claiming these premiums to engage to keep
the imported animals within the State.

No animal, for which to any owner one premium shall
have been awarded, shall be considered a subject for any
future premium of the Society, except it be for an entirely
distinct premium, and for qualities different from those for
which the former premium was awarded.

FOR GRAIN AND VEGETABLE CROPS.

- To the person who shall raise the greatest quantity of
Indian Corn on an acre, not less than one hundred
bushels, \$20
- To the person who shall raise the greatest quantity of
Vegetables, grain, peas and beans excepted, for win-
ter consumption, of the stock on his own farm, and
not for sale, in proportion to the size of the farm and
stock kept, having regard to the respective value
of said vegetables as food, stating the expense of
raising the same, and the best mode of preserving the
same through the winter, 30
- To the person who shall raise the greatest quantity of
winter Wheat on an acre, not less than thirty bushels, 20
- To the person who shall raise the greatest quantity of
spring Wheat on an acre, 20
- To the person who shall raise the greatest quantity of
Barley on an acre, not less than forty-five bushels, 20
- To the person who shall raise the greatest quantity of
Rye on an acre, not less than thirty bushels, 20
- To the person who shall raise the greatest crop of Mil-

- let on an acre, cut and cured for hay, the claimant giving evidence of the time of sowing, the quantity of seed sown, and the quantity of hay produced, \$20
- To the person who shall raise the greatest quantity of Carrots on an acre, not less than six hundred bushels, 20
- To the person who shall raise the greatest quantity of Potatoes on an acre, not less than five hundred bushels, 20
- To the person who shall raise the greatest quantity of common Beets on an acre, not less than six hundred bushels, 20
- To the person who shall raise the greatest quantity of Parsnips on an acre, not less than four hundred bushels, 20
- To the person who shall raise the greatest quantity of Mangel Wurtzel on an acre, not less than six hundred bushels, 20
- To the person who shall raise the greatest quantity of Ruta Baga on an acre, not less than six hundred bushels, 20
- To the person who shall raise the greatest quantity of Turnips on an acre, not less than six hundred bushels, 20
- To the person who shall raise the greatest quantity of Onions on an acre, not less than six hundred bushels, 20
- To the person who shall raise the greatest quantity of Cabbages on an acre, not less than twenty-five tons weight, free from earth when weighed, 20
- To the person who shall raise the greatest quantity of dry Peas on an acre, not less than thirty bushels, 20
- To the person who shall raise the greatest quantity of dry Beans on an acre, not less than thirty bushels, 20
- To the person who shall give proof of having produced the largest quantity of dressed Flax, raised on

half an acre, not less than two hundred and fifty pounds, \$20

To entitle himself to either of the Premiums for Grain or Vegetable crops, the person claiming, must cultivate a tract of at least one acre in one piece, with the plant or production for which he claims a premium, and must state, in writing, under oath of himself, and one other person, (accompanied by a certificate of the measurement of the land by some sworn surveyor,) the following particulars :

1. The state and quality of the land, in the spring of 1824.
2. The product and general state of cultivation and quantity of manure employed on it the year preceding.
3. The quantity of manure used the present season.
4. The quantity of seed used, and if Potatoes, the sort.
5. The time and manner of sowing, weeding, and harvesting the crop, and the amount of the product, ascertained by actual measurement, after the whole produce for which a premium is claimed, is harvested, and the entire expense of cultivation.
6. In regard to Indian corn. The entire produce of the acre must be weighed at the time of harvesting (both corn and cob) and one bushel of the same unshelled must be again weighed on the 15th day of November, and the weights of the whole and of the one bushel must be returned to the committee. It shall be at the option of the person claiming the premium to shell and measure the entire crop or to weigh the same as above required.

And in relation to all vegetables, except Potatoes, Onions, and common Turnips, the fair average weight of at least twenty bushels must be attested; and if there be hay scales in the town in which raised, not less than three average cart loads must be weighed.

The claim under this head, together with the evidences of the actual product, must be delivered, free of expense, to Benjamin Guild, Esq. in Boston, Assistant Recording Secretary of this Society, on or before the first day of Decem-

ber next—the Trustees not intending to decide upon claims under the head of Agricultural Experiments, until their meeting in December.

AGRICULTURAL EXPERIMENTS.

To the person who shall give satisfactory evidence on 'Soiling Cattle,' not less than six in number, and through the whole season, together with a particular account of the food given, and how cultivated, \$30

To the person who shall make the experiment of turning in green crops as a manure, on a tract not less than one acre, and prove its utility and cheapness, giving a particular account of the process and its result, 30

To the person who shall, by actual experiment, prove the best season and modes of laying down lands to grass, whether spring, summer or fall seeding be preferable, and with or without grain on different soils, 30

To the person who shall prove to the satisfaction of the Trustees, that his mode of rearing, feeding and fattening neat cattle is best, 20

To the person who shall prove to the satisfaction of the Trustees, the utility and comparative value of the cobs of Indian corn, when used with or without the grain itself, ground or broken, 20

BUTTER, CHEESE, HONEY, CIDER, CURRANT WINE.

To the person who shall take up in the season, on his own farm, the greatest quantity of good Honey, and shall at the same time exhibit superior skill in the management of Bees, 10

For the best Cheese, *not less* than one year old, and not less in quantity than one hundred pounds, 10

For the next best do. do. 5

For the best Cheese <i>less</i> than one year old,	\$10
For the next best do. do.	5
For the best Butter, not less than fifty pounds,	15
For the next best do. do.	10
For the next best do. do.	7
For the next best do. do.	5
For the greatest quantity of Butter and Cheese, made between the 15th of May, and the 1st of October, from not less than four Cows, the quality of the Butter and Cheese, and the number of Cows to be taken into consideration, and specimens to be exhibited at the Show, of not less than twenty pounds of each, and the mode of feeding, if any thing besides pasture was used,	20
For the best specimen of Cider, not less than one barrel, made in 1823, manufactured by the person who shall exhibit the same, and from apples grown on his own farm,	20
For the second best barrel,	15
[These premiums will be continued in future years. Persons claiming them must state, in writing, their process of making and managing their cider, and the kind of apples used.]	
For the best specimen of Currant Wine, not less than one gallon, exhibited by any person who shall have made not less than 30 gallons in the same season in which that which shall be exhibited was made, (a statement to be given, in writing, of the process of making the same,)	10
For the next best do. do.	5

FOR INVENTIONS.

To the person who shall use the Drill Plough, or Machine, and apply it most successfully to the cultivation of any small Grains or Seeds, on a scale not less than one acre,	\$20
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To the person who shall invent the best Machine for pulverizing and grinding Plaster to the fineness of twenty-five bushels per ton, and which shall require no more power than a pair of oxen or horse, to turn out two tons per day, and so portable that it can be removed from one farm to another without inconvenience,

30

To the person who shall produce, at the Show, any other Agricultural Implement, of his own invention, which shall, in the opinion of the Trustees, deserve a reward, a premium not exceeding *twenty dollars*, according to the value of the article exhibited.

In all cases proofs must be given of the work done by the Machine, before it is exhibited; and of its having been used and approved by some practical farmer. Persons who have taken out Patents for their inventions, are not thereby excluded from claiming any of the above premiums.

No claimant will be entitled to a premium unless in the opinion of the Committee, the machine or implement presented by him shall be superior to any designed for the same use, which shall have heretofore gained a premium.

FOR FOREST, FRUIT TREES AND HEDGES.

For the best plantation of White Oak Trees, not less than one acre, nor fewer than one thousand trees per acre, to be raised from the acorn, and which trees shall be in the best thriving state, on the first of September, 1824.

\$100

For the best plantations of White Ash, Larch and Locust Trees, each of not less than one acre, nor fewer than one thousand trees per acre, to be raised from the seeds, and which trees shall be in the best thriving state, on the first of September, 1827.

50

For the best Live Hedge made of either the White or Cockspur Thorn, planted in 1820, not less than one hundred rods, and which shall be in the best thriving state in 1824

50

To the person who shall have planted out on his farm, since the spring of 1815, the greatest number of Apple Trees, not less than one hundred in number, and who shall exhibit to the Trustees, at the Show in 1827, satisfactory evidence of his having managed them with care and skill

50

FOR DOMESTIC MANUFACTURES.

To the person or corporation who shall produce the best specimen of fine Broadcloth, not less than 1 5-8 yards wide, exclusive of the list, forty yards in quantity, and dyed in the wool

\$20

For the second best do. do. do.

15

For the best superfine Cassimere, not less than 3-4 yard wide, or less than forty yards in quantity

12

For the second best do. do. do.

8

For the best superfine Sattinet, 3-4 yard wide, not less than 50 yards

8

For the second best do.

5

FOR HOUSEHOLD MANUFACTURES.

For the best Woollen Cloth, 3-4 yard wide, not less than twenty yards in quantity

\$12

For the second best do. do.

8

For the best double milled Kersey, 2-4 yard wide, not less than twenty yards in quantity

12

For the second best do. do.

8

For the best Coating, 3-4 yd. wide, not less than 20 yds. in quantity

8

For the second best do. do.

6

For the best Flannel, 7-8 yd. wide, not less 45 yds. in quantity

10

For the second best do. do.

7

For the best yard wide Carpeting, not less than 30 yards in quantity

15

For the second best do. do.

7

For the best 5-8 yard wide Stair Carpeting, not less than 30 yards in quantity

10

For the second best do. do.	7
For the best pair of Blankets, not less than 8-4 wide and 10-4 long	6
For the second best do. do.	4
For the best Woollen Knit Hose, not less than 12 pair in number	5
For the second best do. do.	3
For the best Worsted Hose, not less than 12 pair in num- ber	5
For the second best do. do.	3
For the best Men's Half Hose, (woollen) not less than 12 pair in number	4
For the second best do. do.	2
For the best Men's Woollen Gloves, not less than 12 pair in number	5
For the second best do. do.	3
For the best Linen Diaper, 5-8 yard wide, not less than 30 yards in quantity	5
For the second best do. do.	3
For the best yard wide Diaper, (for table linen) not less than 30 yards in quantity	10
For the second best do. do.	5
For the best specimen of Sewing Silk, raised and spun in this State, of good fast colours, not less than one pound	5
For the second best do. do.	3
For the best Linen Cloth (for shirting or sheeting) one yard wide and twenty-five yards long	8
For the second best do. do.	4
To the person who shall produce the best specimen of any Cotton fabrics in private families, not less than five pieces	20

All the above manufactures of which the material is either in whole or in part sheep's wool, must be made of wool of the growth of the United States, and manufactured within the State of Massachusetts. And all Manufactures, when presented, must have a private mark, and any public or

known mark must be completely concealed, so as not to be seen, or known by the Committee, nor must the Proprietors be present when they are examined; in default of either of these requisitions, the articles will not be deemed entitled to consideration or premium.

Animals, Manufactures, or Articles, may be offered for premium at Brighton, notwithstanding they may have received a premium from a County Agricultural Society.

It is understood, that whenever merely from a want of competition, any of the claimants may be considered entitled to the premium, under a literal construction, yet if, in the opinion of the Judges, the object so offered is not deserving of any reward, the Judges shall have a right to reject such claims. Persons to whom premiums shall be awarded, may, at their option, have an article of Plate, with suitable inscriptions, in lieu of money. Premiums will be paid within ten days after they shall be awarded.

That in any case in which a pecuniary premium is offered, the Trustees may, having regard to the circumstances of the competitor, award either one of the Society's gold or silver medals in lieu of the pecuniary premium annexed to the several articles.

That if any competitor for any of the Society's premiums shall be discovered to have used any disingenuous measures, by which the objects of the society have been defeated, such person shall not only forfeit the premium which may have been awarded to him, but be rendered incapable of being ever after a competitor for any of the Society's premiums.

All premiums not demanded within six months after they shall have been awarded, shall be deemed as having been generously given to aid the funds of the Society.

PLOUGHING MATCH.

On the second day of the Cattle Show, viz. the 21st day of October, Premiums will be given to the owners and ploughmen of the three Ploughs, drawn by two yoke of oxen, and to

the owners and ploughmen of the three Ploughs drawn by one yoke of oxen, which shall be adjudged, by a competent Committee, to have performed the *best work, with least expense of labor*, not exceeding half an acre to each plough. Notice will be given in the public Papers, at least six weeks before said day, that a piece of ground has been provided for twenty ploughs—ten double and ten single teams; and that entries may be made of the names of the competitors until the morning of the 21st. Preference will be given to those who enter first; but if, on calling the list at the hour appointed, precisely, those first named do not appear, the next in order will be preferred. There will be two Committees, of three persons each—one to be the judges of the ploughing by the double teams, the other of the ploughing by the single teams—the latter to have assigned to them a part of the field distinct from that of the double team.

Premiums as follows, (being the same for the double and single teams.)

First Plough	\$15	Second Plough	\$10	Third Plough	\$6
Ploughman	3	Ploughman	5	Ploughman	3
Driver	4	Driver	3	Driver	2

In each case, if there be no Driver, both sums to be awarded to the Ploughman.

The persons intending to contend for these Prizes, must give notice, in writing, to Gorham Parsons, Esq. of *Brighton*. The competitors will also be considered as agreeing to follow such rules and regulations as may be adopted by the Committee on the subject. The ploughs to be ready to start at 9 o'clock, A. M.

The result of the last Ploughing Matches at Brighton, and the satisfaction expressed by so many of their agricultural brethren, will induce the Society to continue these premiums annually, in connexion with the Cattle Show, as an efficacious means of exciting emulation and improvement in the use and construction of the *most important instrument of agriculture*.

Persons intending to offer any species of Stock for premiums, are requested to give notice thereof, either by letter

(post paid) stating the articles, or to make personal application to the Secretary of the Show* *Brighton*, on or before 19th day of October, in order that he may enter such notice or application, so that tickets may be ready at 9 o'clock on the 20th. No person will be considered as a competitor, who shall not have given such notice, or made such application for entry, on or before the time above specified.

All articles of manufactures and inventions, must be entered and deposited in the Society's Rooms, on Monday, the 18th of October, and will be examined by the Committees on Tuesday, the 19th, the day before the Cattle Show; and no person but the Trustees shall be admitted to examine them before the Show. The articles so exhibited, must be left till after the show, for the satisfaction of the public.

The applicants will be held to a rigid compliance with this rule relative to entries, as well as to the other rules prescribed.

The examination of every species of stock, (except working oxen) will take place on the 20th; and the trial of Working Oxen, and Ploughing Match, on the 21st of October.

The Trustees also propose to appropriate, on the second day of the Cattle Show, their Pens for the public sale of any Animals, that have been offered for premium, and also of any others that are considered by them, as possessing fine qualities; and their Halls for the public sale of Manufactures. Both sales to take place at half past eleven o'clock, precisely. And for all Animals or Manufactures, that are intended to be sold, notice must be given to the Secretary, before 10 o'clock of the 21th. Auctioneers will be provided by the Trustees.

By order of the Trustees,

R. SULLIVAN,	} Committee.
J. PRINCE,	
G. PARSONS,	
E. H. DERBY,	

January, 1824.

* Due notice will be given in the newspapers, of the name of the person appointed Secretary, to whom application is to be made.

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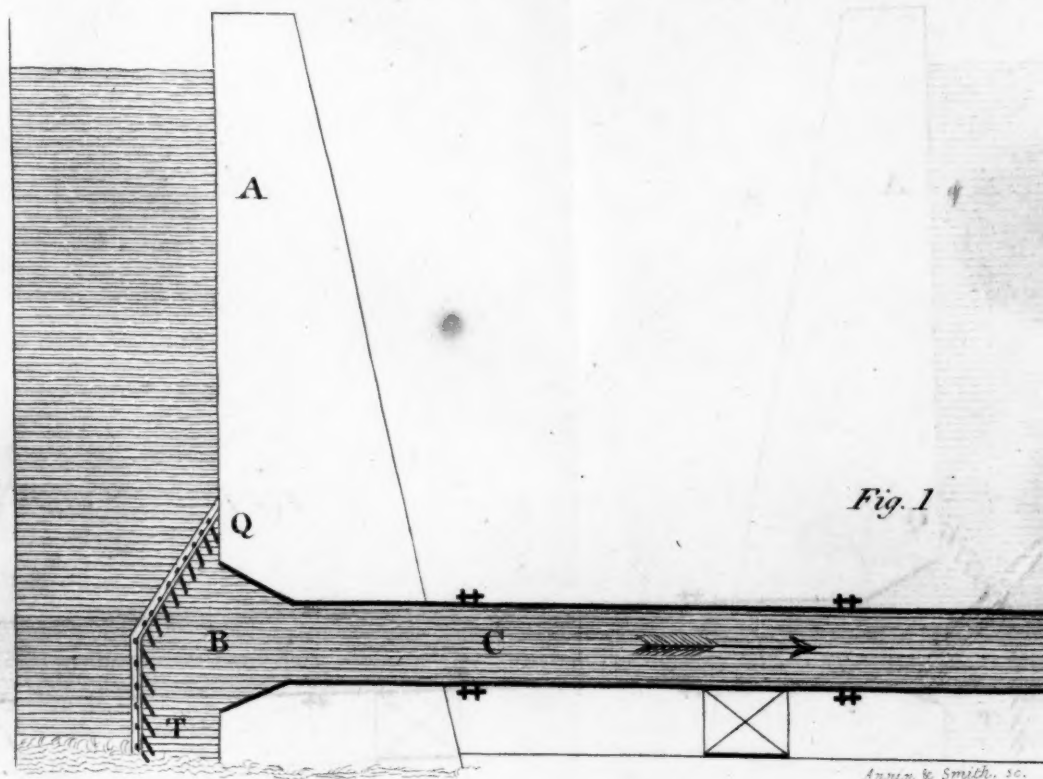
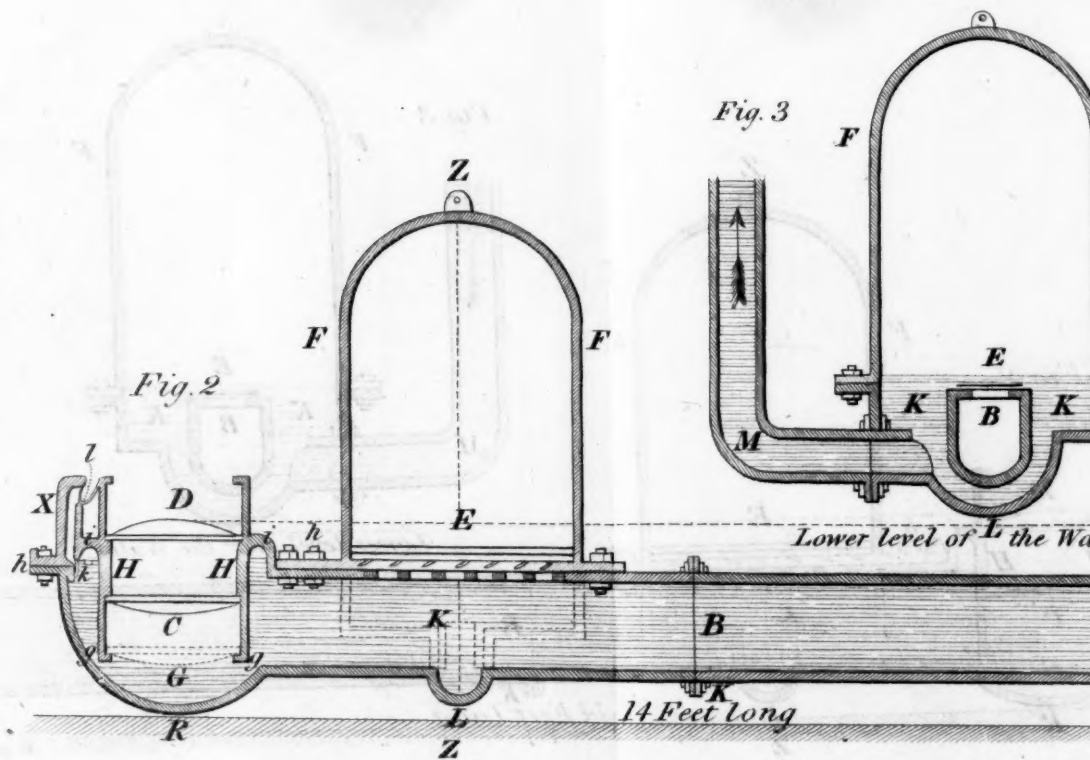
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